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ABSTRACT

The purpose of this manual is to identify teaching skills and their justification and objectives in a learning situation and to suggest a few of a wide selection of professional activities and services which meet these objectives and satisfy learner needs. The manual is designed for inservice teacher education activities or supervisory programs. Activities and objectives in 14 skill areas are suggested which are intended to meet learners' needs: (1) meaningful interpersonal interactions in a variety of environments and situations; (2) a supportive physical environment which includes appropriate use of space, time, and materials; (3) direction and security from the surrounding society and culture; (4) compelling, inspiring reasons to focus attention on the learning task; (5) sensory-motor health and a general sense of wellbeing; (6) developing intellectual aptitude and expanding intellectual capabilities; (7) a supportive, actualizing self-concept (8) perceptual clarity; (9) cognitive comprehension and understanding; (10) utilizing past experiences and previous trials and errors; (11) being a productive and an active individual; (12) recognition and rewards; (13) feedback and monitoring performance results; and (14) expressing creativity and finding solutions to problems. A self-assessment guide is provided, and three evaluation procedures are suggested for measuring personal progress in the development of the skills. (JD)

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A SELF-HELP INSERVICE-GUIDE FOR THE IMPROVEMENT OF TEACHING

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A NORTH DAKOTA ADAPTATION OF THE UTAH SKILLS PROJECT

1980

NORTHERN PLAINS TEACHER CORPS

SP 020 264

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PREFACE

The development of an idea from initiation through incubation and production to completion is an interesting process. The idea for this publication was stimulated by a presentation made in Salt Lake City at a Rocky Mountain Teacher Corps Network meeting in the spring of 1980. A group of educators from the Utah Collaborative Teacher Corps Project '78 made a presentation of the UTAH SKILLS PROJECT* which is a description of learner needs and the concomitant teaching skills needed to respond to those needs.

Mr. Darrell Gannarelli, Principal of the Turtle Mountain Community Middle School, Belcourt, North Dakota, listened to the presentation. He saw the potential for using the concept of developing of specific teaching skills to meet specific learner needs as a most useful supervisory tool. Mr. Gannarelli discussed the idea with Dr. Donald K. Lemon, Director of the Northern Plains Teacher Corps Project '78 (North Dakota), with which both men were affiliated. Excitement about the idea spread.

In subsequent discussions with personnel from Utah it was discovered that there was developmental material to assist teachers for only about twenty (20) of the seventy-two (72) teaching skills and the material which was available was sophisticated beyond its usefulness in teacher supervision.

Dr. Lemon began to conceptualize the development of a resource guide which could be used in multiple ways to assist teacher educators, principals, and classroom teachers through a variety of processes such as teacher education, supervision, inservice education, and individual initiative to improve teaching skills and thus better meet learner needs. Dr. Lemon discussed the ideas with members of the project staff. Again, excitement about the idea spread.

Dr. Luan Ferrin, Director of the Utah Collaborative Teacher Corps Project '78, was contacted and asked to put together a consulting team with the greatest knowledge of the teacher skills identified by the UTAH SKILLS PROJECT. He identified Drs. Malcolm Allred, Utah State University; James Baird, Brigham Young University; and David Stone, Utah State University. These men, along with the North Dakota team: Dr. Judy Minier, Teacher Corps Documentor; Mr. John Andrus, Teacher Corps Graduate Research Assistant and Elementary School Principal at Bottineau; William Tipton, Teacher Corps Graduate Research Assistant; Darrell Gannarelli, Middle School Teacher at Belcourt, assembled in mid-summer of 1980 to work on the development of a publication to meet the goals stated earlier.

Dr. Lemon met with the group to clarify the concept the group was to work toward and the specific tasks to be accomplished. The group was eager to undertake the tasks and excited about the prospect of the usefulness of a finished product.

Dr. Allred and Dr. Minier took leadership roles in directing the activity of the group and keeping the group on task. The group worked several days and addressed all seventy-two of the specific teaching skills in terms of rationale, objectives, and activities. Dr. Allred took the work done by the

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*Utah State Board of Education, 250 East Fifth South, Salt Lake City, Utah 84111, 1979.

group back to Utah and prepared an initial draft for submission to the Northern Plains Teacher Corps project.

Upon receipt of the initial draft, Dr. Minier spent hours over a several-weeks period in the fall of 1980 in editing, revising, and adding to the initial draft. After the final draft was completed, Mr. Tipton designed the cover and arrangements were made to put the publication in the format you now have in your hands.

It is our belief that you may use this publication in a variety of ways to strengthen teaching skills which are related to learner needs and, in so doing, improve job satisfaction and student performance. The opportunity for personal growth and school improvement now resides with you.

OVERVIEW

The competent teacher seeks to develop in three major kinds of ways: first, in improving personality; secondly, in increasing subject matter knowledge; and third, in improving teaching skills.

The "Skill Dimension" of professional competence means that a teacher is able to use teaching skills to meet learner needs. A teacher demonstrates professional competence through a variety of activities. The purpose for this publication and the task of the writing group was to discover and list a variety of illustrations or examples of activities and professional services which, when performed by the teacher, provide one form of evidence of his/her skilled ability to meet learner needs.

This evidence, the performing of certain professional services, can be identified and described by the teacher and by qualified observers/supervisors. The level[1] at which the professional activity is completed or at which the professional service is delivered is an indication of the quality of the teacher's competence. Teachers should be concerned with both quality and quantity with respect to teaching skills.

An Introductory Statement

All learners have learner needs which can be identified and described. The PURPOSE of the school is to meet the responsibility placed upon it by society to satisfy these learner needs. Thus, the GOAL of inservice activities and supervisory programs for educators is to assure that each learner has appropriate and adequate opportunities to satisfy his/her learner needs. The OBJECTIVE of the teacher is to provide professional services which assist or enable the learner to satisfy learner needs.

Specific professional services have been identified which satisfy learner needs.[2] These professional services are called teaching skills. The professional teacher is a competent person who uses teaching skills to meet learner needs.

The purposes of this publication are:

(1) To identify teaching skills and their justification in a learning situation,
(2) To list objectives in relation to these teaching skills, and
(3) To suggest a few of a wide selection of professional activities and services which meet these objectives and, consequently, satisfy learner needs.

This publication is designed to be used in inservice activities and/or supervisory programs at the local school level and is supplementary to TEACHING SKILLS . . . A DIMENSION OF PROFESSIONAL COMPETENCE and the several SKILLGUIDES developed by, or with the direction of, the Utah Skills Project. Its ultimate purpose, as is the purpose of other materials developed by the Project, is to encourage and to give direction to teachers as

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[1]Utah Skills Project. Teaching Skills . . . A Dimension of Professional Competence, Utah State Board of Education, 1980.

[2]Ibid.

they increase their professional competence to meet learner needs. The content should be adapted and used to meet the peculiar circumstances of each situation and the specific needs of each faculty and teacher. A word of caution, however, is in order. A thorough knowledge and understanding of the philosophical and psychological bases upon which it has been developed must be acquired by those who have responsibility for its use in inservice activities and supervisory programs. This knowledge and understanding should be shared with program participants, at appropriate times, to provide meaning and to insure scope and sequence in the development and utilization of teaching skills which meet learner needs.

Learner Needs - Teacher Skills

In every learning situation which occurs in schools and classrooms, particular learner needs are being met or going unnoticed by the person responsible for the instruction. Theory, research, and experience indicate that the processes of teaching and learning are most effective when the learning needs are being satisfied.[3] Effective teachers often find ways to develop their own teaching skills in order to meet learner's needs.

Although there may be an infinite number of needs that learners may articulate, nearly all of these will fall into five groups called "clusters." (See the table on the following page.) The five cluster areas of learner needs can be expended further into fourteen specific learner needs. These specific learner needs, then, become the focus for the fourteen skill areas which teachers utilize to address student or learner needs.

Teacher skills are further subdivided into seventy-two areas of skill which meet learner needs in increasingly specific ways. (See the tables following the Learner Needs table.) Professional educators should be striving to increase their expertise in identifying student needs in general and in specific contexts and then match the appropriate teacher skill to the learner need. In a diagrammatic fashion the process looks like this:

Teaching/Learning Situation

Learner Needs	Teacher Skills
Need 1	Skill to meet Need 1
Need 2	Skill to meet Need 2
Need 3	Skill to meet Need 3
etc.	etc.

Learner needs must be identified and matched with appropriate teacher skills.

The tables following these Overview pages provide the reader with more generic learner needs, more specific learner needs, and teacher skills which match the needs of the learner. One can quickly scan the tables from left to right and determine how many skill areas correspond to specific learner needs. In fact, skill areas are numbered and described adequately enough so the reader can locate the appropriate topic elaborated elsewhere in this guide.

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[3] Ibid.

LEARNER NEEDS

TEACHER SKILL AREAS

Clusters of Learner Needs	Specific Learner Needs	
	Related to the situation or environment	
I. SITUATION	1. Learner's need for interpersonal interactions	INTERPERSONAL INTERACTION
	2. Learner's need for supporting physical environment	SPACE-TIME MATERIALS
	3. Learner's need for security and direction from society/culture	CULTURE-CURRICULUM
	4. Learner's need for a compelling stimulus to focus attention	STIMULUS
	Related to the readiness of the learner	
II. READINESS	5. Learner's need for sensory-motor health and well-being	SENSORY-MOTOR HEALTH
	6. Learner's need for expansion of intellectual abilities	INTELLECTUAL APTITUDE
	7. Learner's need for supportive, actualizing self-concept	PERSONALITY
	Related to ideation or the process of thinking	
III. IDEATION	8. Learner's need for perceptual clarity	PERCEPTION
	9. Learner's need for cognitive comprehension	COGNITION
	Related to learning activities	
IV. TRIAL	10. Learner's need to utilize past experiences	TRANSFER
	11. Learner's need to produce/be active	WORK MODE
	Related to feedback tied to learning experiences	
V. FEEDBACK	12. Learner's need for reward	AFFECTIVE FEEDBACK
	13. Learner's need for knowledge of performance results	INFORMATIONAL FEEDBACK
	14. Learner's need for expression of creativity and solution of problems	CREATIVE PROBLEM-SOLVING

* This chart is not intended to suggest any hierarchial ranking of learner needs or teacher skill areas; the appropriate cluster depends upon the specific needs of the teacher and/or students.

UTAH/NORTH DAKOTA SKILLS CHART

SKILL AREAS	SKILLS (Teaching Skills Which Meet Learner Needs)					
Interpersonal Interaction	SA 1.1 Promotion of Group Acceptance of Each Person	SA 1.2 Formation and Utilization of Work Groups	SA 1.3 Measurement of Student Relationships	SA 1.4 Utilization of Group Dynamics	SA 1.5 Interaction with Parents and Community	SA 1.6 Cooperation with Colleagues
Space-time Materials	SA 2.1 Utilization of In-class Schedules 2.7 Control and Adaptation of Physical Factors	SA 2.2 Adaptation and Modification of Schedules	SA 2.3 Adaptation of Facilities to Individual Teaching Style	SA 2.4 Expansion of Learning Environment	SA 2.5 Utilization of Materials and Equipment	SA 2.6 Development of Interest Centers and Learning Centers
Culture-curriculum	SA 3.1 Promotion of Democratic Tasks, Values, and Processes	SA 3.2 Utilization of Cultural Uniqueness and Cultural Pluralism	SA 3.3 Constructive Interaction with Societal/ Cultural Forces	SA 3.4 Compliance with Law	SA 3.5 Development of Curricular Scope and Sequence	
Stimulus	SA 4.1 Effective Communication	SA 4.2 Promotion of Student Interest	SA 4.3 Employment of Simple and Complex Associations	SA 4.4 Utilization of Simulation	SA 4.5 Programming of Structure	
Sensory-motor Health	SA 5.1 Identification of and Adjustment to Auditory Handicaps SA 5.7 Demonstration of Safety Practices	SA 5.2 Identification of and Adjustment to Visual Handicaps	SA 5.3 Recognition of Motor Development and Handicaps	SA 5.4 Identification of and Adjustment to Varied Health Patterns	SA 5.5 Adapting to Energy Levels	SA 5.6 Providing Programs for Healthful Living
Intellectual Aptitude	SA 6.1 Identification of Intellectual Readiness	SA 6.2 Provision for Intellectual Expansion	SA 6.3 Recognizing and Adapting to Stages of Mental Growth	SA 6.4 Providing for Exceptionality		

UTAH/NORTH DAKOTA SKILLS CHART--Cont.

Personality	SA 7.1 Estimation of Student Interests and Values	SA 7.2 Measuring and Promoting Mental Health	SA 7.3 Promotion of Self-discovery	SA 7.4 Development of Trust	SA 7.5 Promotion of Growth of Self	
Perception	SA 8.1 Identification and Correction of Misperceptions	SA 8.2 Discrimination Training	SA 8.3 Utilization of Perceptually Oriented Materials	SA 8.4 Individualizing Student Perceptual Patterns		
Cognition	SA 9.1 Development of Kinds of Thinking	SA 9.2 Developing Concepts	SA 9.3 Relating Concrete to Logical Thinking	SA 9.4 Development of Levels of Thinking Processes		
Transfer	SA 10.1 Sequencing Lessons to Use Past Learning	SA 10.2 Identification of the Need and Provision for Repetition	SA 10.3 Identification of the Need and Provision for Generalization	SA 10.4 Utilization of Cues for Search and Memory	SA 10.5 Reduction of Inhibition	SA 10.6 Assessment of Transfer
Work Mode	SA 11.1 Analysis of Learning Task SA 11.7 Initiation of Inductive and Deductive Strategies	SA 11.2 Utilization of Objectives	SA 11.3 Provision for Practice to Improve Performance	SA 11.4 Maintaining On-task Behavior (Impetus)	SA 11.5 Minimizing Distractors	SA 11.6 Monitoring Student Mode of Work
Affective Feedback	SA 12.1 Shaping Behavior	SA 12.2 Controlling Behavior	SA 12.3 Development of Reward Systems			
Informational Feedback	SA 13.1 Designing Feedback Systems SA 13.7 Prediction of Common Errors	SA 13.2 Development of Evaluative Devices	SA 13.3 Utilization of Diagnostic Analysis	SA 13.4 Utilization of Feedback for Program Development	SA 13.5 Utilization of Statistical Data and Research Procedures	SA 13.6 Providing Instructional Phrases
Creative Problem-solving	SA 14.1 Fostering Creative Activity	SA 14.2 Fostering Scientific Problem-solving				

SELF ASSESSMENT GUIDE

My Skills Profile - 72 Skills

SA	.1	.2	.3	.4	.5	.6	.7	Comments
1. Interpersonal Interaction								
2. Space-time Materials								
3. Culture Curriculum								
4. Stimulus								
5. Sensory-motor Health								
6. Intellectual Aptitude								
7. Personality								
8. Perception								
9. Cognition								
10. Transfer								
11. Work Mode								
12. Affective Feedback								
13. Informational Feedback								
14. Creative Problem Solving								

Self-Assessment Guide

(How to determine those skill areas which need attention or improvement)

The following self-assessment guide is to be used by an individual for the purpose of determining the level of expertise and knowledge in a particular Skill Area.

DIRECTIONS: Complete each item on the form by marking the category which best describes you under the heading titled "My Performance." It is recommended that you complete this survey in one setting because of the reference point it will provide as you make decisions about activities for your own skill level at this time. Later you may return to the guide form and reevaluate yourself or make new decisions about other Skill Area Activities which may assist your own personal and professional growth and development.

Use the following indicators as the basis for recording your responses on the survey:

Level 1 indicates: knowing the professional vocabulary, can read professional literature, and can explain basic educational concepts, principles, and theories.

Level 2 indicates: using professional knowledge to develop appropriate instructional plans.

Level 3 indicates: implementing instructional plans to meet the learning needs of students.

Level 4 indicates: adapting the implementation of instructional plans to a variety of circumstances and/or learning needs of students.

Level 5 indicates: the teacher who has synthesized his/her teaching skills over an extended period of time so that the previous four levels are automatically integrated into classroom practices.

Skill Area 1.0 Interpersonal Interaction	My Performance
SA 1.1 Promotion of Group Acceptance of Each Person	1 2 3 4 5

Rationale: All individuals are important. The worth and dignity of each person cannot be questioned.

SA 1.2 Formation and Utilization of Work Groups	1 2 3 4 5

Rationale: Some activities can be presented to the entire class and some can best be done in smaller groups. It is well established, for example, that small reading groups are needed for individualized instruction. Ability and/or achievement grouping may reflect more economical instruction.

My Performance

SA 1.3 Measurement of Student Social Relationships 1 2 3 4 5

Rationale: Teachers need to talk at critical points in the learning process. When giving information it's economical and essential, and the measured teacher-talk ratio should show high levels. There are other kinds of interaction to be found, especially in group discussions. In these, various kinds of interaction and leadership patterns should be established.

SA 1.4 Utilization of Group Dynamics 1 2 3 4 5

Rationale: People participate in groups throughout their lifetimes; it is important to become effective members of such groups to maintain their productivity and success. Students can learn group roles and group dynamic principles in classroom settings.

SA 1.5 Interaction with Parents and Community 1 2 3 4 5

Rationale: Parental and community support for educational activities needs to be purposefully cultivated.

SA 1.6 Cooperation with Colleagues 1 2 3 4 5

Rationale: Work sharing can improve the effectiveness and job satisfaction of an individual as well as of a group.

Skill Area 2.0 Space-time Materials

SA 2.1 Utilization of In-Class Scheduling 1 2 3 4 5

Rationale: Individual teachers may not be aware of the fact that they give more time to an area of particular interest to themselves.

SA 2.2 Adaptation and Modification of Schedules (Total School) 1 2 3 4 5

Rationale: The routine of school is often taken for granted, but for all teachers the movement in time can be done instructively and with benefit to pupils.

SA 2.3 Adaptation of Facilities to Individual Teaching Style 1 2 3 4 5

Rationale: Each person (staff member) can enjoy work to a greater degree if he/she can add special, personal touches to the environment, or use materials or visit places of personal interest.

SA 2.4 Expansion of the Learning Environment 1 2 3 4 5

My Performance

Rationale: While field trips are a long-standing way of enriching the regular environment, many in-class projects also qualify in this area. Some teachers have used simulations (set up a spaceship, operate a bank) to successfully promote learning.

SA 2.5 Utilization of Materials and Equipment 1 2 3 4 5

Rationale: With modern technology so highly developed, basic skill is needed in using new materials and in operating the more common equipment found at school.

SA 2.6 Development of Interest Centers and Learning Centers 1 2 3 4 5

Rationale: Both spontaneous and planned interest and learning centers have a place in the classroom. Centers promote individualized instruction, personalized learning, and self-direction.

SA 2.7 Control and Adaptation of Physical Factors 1 2 3 4 5

Rationale: The values of a community are reflected in the pride taken in the schools, and in how well the design and management of the space and furnishings of the building have been taken into account.

Skill Area 3.0 Culture Curriculum

SA 3.1 Promotion of Democratic Tasks, Values, and Processes 1 2 3 4 5

Rationale: Teachers support democracy and democratic processes and principles.

SA 3.2 Utilization of Cultural Uniqueness and Cultural Pluralism 1 2 3 4 5

Rationale: Educators often take certain kinds of cultural backgrounds for granted. There is a need to understand and respond to a wide variety of individual and group needs. Cultural variance can be utilized to enrich classroom experiences.

SA 3.3 Constructive Interaction with Societal/Cultural Forces 1 2 3 4 5

Rationale: Understanding cultures of the world is as rewarding and necessary as the study of the physical world.

SA 3.4 Compliance with the Law 1 2 3 4 5

Rationale: The only real freedom is freedom with responsibility.

My Performance

SA 3.5 Development of Curricular Scope and Sequence 1 2 3 4 5

Rationale: The nation's schools (maligned as they are by critics) reflect the social and intellectual health of the culture. Conflicts as well as consensus are found there. As units are evaluated for inclusion in a course, decisions as to what to include are forced upon the teacher. These decisions are improved by an explicit statement of a concept or principle of what is wanted to best make the unit operational. It is not repetitive to reconsider a topic at a higher grade level; processes need to be balanced with content.

Skill Area 4.0 Stimulus

SA 4.1 Effective Communication 1 2 3 4 5

Rationale: A variety of presentation modes add variety and interest to lessons. While not to be used for their own sake, each has its own particular advantages. The clarity of the stimulus refers to both the content of the message(s) sent and the adequacy of the presentation.

SA 4.2 Promotion of Student Interest 1 2 3 4 5

Rationale: Novelty and vividly compelling presentations encourage interest which can lead to increased learning.

SA 4.3 Employment of Simple and Complex Associations 1 2 3 4 5

Rationale: Students often bring known concepts to a situation which can be associated with concepts or symbols yet unknown. Also, because of background ideas already internalized, the student can make "connections" and accumulate a great deal of information.

SA 4.4 Utilization of Simulation 1 2 3 4 5

Rationale: Simulation can be safer than some true life experiences and yet allows a wider variety of experience than would otherwise be possible.

SA 4.5 Programming of Structure 1 2 3 4 5

Rationale: The technological revolution (including teaching machines, programmed instruction, task analysis, etc.) has revived interest in the "complete containment" of concepts written in "frames" and specified in step-by-step tasks. Common observations of teachers reveal this need, as when these statements are made: "I should tell you this first," or "That is too hard for you at this time."

My Performance

Skill Area 5.0 Sensory Motor Health

SA 5.1 Identification of and Adjustment to Auditory Handicaps 1 2 3 4 5

Rationale: Deafness and auditory discrimination/retention problems are more widespread than many teachers suppose. Also, there are several varieties and degrees of deafness and other auditory problems.

SA 5.2 Identification of and Adjustment to Visual Handicaps 1 2 3 4 5

Rationale: Visual disabilities are more widespread than people suppose. Also, there are several varieties and degrees of visual kinds of disabilities.

SA 5.3 Recognition of and Adjustment to Motor Handicaps and Physical Development Patterns 1 2 3 4 5

Rationale: Motor coordination and motor disabilities may affect student's academic (as well as physical) performance to a greater degree than most teachers realize.

SA 5.4 Identification of and Adjustment to Varied Health Conditions 1 2 3 4 5

Rationale: Students have different levels of healthfulness and teachers need to adapt the nature and the duration of the activity to meet the health condition for each student.

SA 5.5 Adapting to Energy Levels 1 2 3 4 5

Rationale: Individual students vary extensively in physical and mental "energies" from hyperactivity to lethargy. Teachers must recognize the variance in students' energy levels and adapt instruction accordingly in order to maximize the learning experience.

SA 5.6 Providing Programs for Healthful Living 1 2 3 4 5

Rationale: With the prevelance of drugs and drug abuse in this society, there is a need to verify limits as well as promote healthful alternatives to students for personal safety and well-being. Poor health and poor health practices are detrimental to learning.

SA 5.7 Demonstration of Safety Practices 1 2 3 4 5

Rationale: Safety saves time and lives.

My Performance

Skill Area 6.0 Intellectual Aptitude

SA 6.1 Identification of Intellectual Readiness 1 2 3 4 5

Rationale: In order to achieve individual or group goals, teachers need to know the intellectual readiness of students. Appropriate materials and learning activities cannot be accurately utilized if student readiness levels have not been previously determined.

SA 6.2 Promoting for Intellectual Growth 1 2 3 4 5

Rationale: Student's intellectual stimulation should be promoted because an expanded intellect is the very essence of learning. Acquiring new concepts or thought patterns are skills needed by everyone in order to live in our complex world.

SA 6.3 Recognizing and Adapting to Stages of Mental Growth 1 2 3 4 5

Rationale: The frustration which can result when students are asked to perform tasks which they are not adequately prepared to do can be enormously detrimental to the learning process.

SA 6.4 Provision for Exceptionality 1 2 3 4 5

Rationale: Special programs, materials, and considerations are needed in order to provide appropriate instruction to students all along the aptitude continuum--from gifted and exceptionally bright learners to the slow or retarded learners.

Skill Area 7.0 Personality

SA 7.1 Estimation of Students' Interests and Values 1 2 3 4 5

Rationale: Teachers can teach more effectively and deal more productively with their students if knowledge is available about individual's self-concepts, aptitudes, values, interests, etc.

SA 7.2 Measuring and Promoting Mental Health 1 2 3 4 5

Rationale: Both mental and physical health affect learning; good mental health can aid learning. Some evidence also exists which shows that mental health can affect physical well-being. Thus, the importance of good emotional health should not be underestimated.

SA 7.3 Promotion of Self-Discovery 1 2 3 4 5

Rationale: Students are more effective learners if they are aware of their own limitations and strengths. Self-discovery is a lifelong process and human beings should being learning how to unlock their own

My Performance

potential at the earliest age possible.

SA 7.4 Development of Rapport 1 2 3 4 5

Rationale: Unless teachers can relate to their students and develop a trusting relationship, student learning may be inhibited. Students sense "phoniness" in teachers and will respond to that behavior by tuning out information and instruction. Teachers who have empathy are generally able to build rapport based on trust.

SA 7.5 Promotion of Growth of Self 1 2 3 4 5

Rationale: Nondirective teaching methods and styles of interaction tend to develop self-analysis skills and tend to create a higher level of self-direction and goal setting behavior in students.

Skill Area 8.0 Perception

SA 8.1 Identification and Correction of Misperceptions 1 2 3 4 5

Rationale: Over a period of time, teachers begin to predict particular kinds of errors will occur, usually due to either "content" or "process" (misperceiving). Very often the success of a student may depend upon his "seeing" a very important part of the stimulus or concept.

SA 8.2 Discrimination Training 1 2 3 4 5

Rationale: Students need to have discrimination/differentiation skills in order to be able to develop correct workable precepts. Incorrect or undeveloped discrimination skills can hamper student's learning in any academic area.

SA 8.3 Utilization of Perceptually Oriented Materials 1 2 3 4 5

Rationale: Materials which help develop thinking skills in people are essential for establishing lifelong learning habits and practices. Correct perception about the relationships among/between parts and the whole (concrete objects as well as abstract ideas) affects all aspects of a person's life and should be taught and developed in individuals.

SA 8.4 Individualizing Student Perceptual Patterns 1 2 3 4 5

Rationale: Accurate interpretations and sensitive reflections of social and physical worlds need to be developed so that students can live in harmony with him or herself.

My Performance

Skill Area 9.0 Cognition

SA 9.1 Development of Kinds of Thinking 1 2 3 4 5

Rationale: Cognition as a general idea is operationally explainable in terms of ways of thinking. Guilford begins with simple thinking (recall) and goes on to convergent and divergent thinking. A variety of ways of thinking is desirable because alternative solutions to problems need to be uncovered for the complex world we live in.

SA 9.2 Developing Concepts 1 2 3 4 5

Rationale: Concepts are labels which apply to sets of precepts. Regularities of form, color, movement, or behavior makes possible the naming or labeling process which is essential to cognition, understanding, communication, etc.

SA 9.3 Relating Concrete to Logical Thinking 1 2 3 4 5

Rationale: People learn about their surroundings in a cognitively developed process, moving through stages of knowledge and awareness in systematic ways.

SA 9.4 Development of Levels of Thinking Processes 1 2 3 4 5

Rationale: Inferential thinking is based on facts (knowledge) but requires comprehension, application, analysis, synthesis, and evaluation, as in Bloom's taxonomy. Educators must help students realize their thinking potential.

Skill Area 10.0 Transfer

SA 10.1 Sequencing Lessons to Use Past Learning 1 2 3 4 5

Rationale: Transfer implies that past experience provides a context for present learning, as well as pointing out that something learned will be useful in the future. Two kinds of transfer types of learning have been identified: (1) transfer by identity and (2) transfer by generalization. Both are useful depending on the problem or nature of the task.

SA 10.2 Identification of the Need and Provision for Repetition 1 2 3 4 5

Rationale: Some memory tasks and skilled action are strengthened by repetition. While habit strength should not be used as a substitute for transfer by insight, the "seasoning of repetition" under pressure and under varied conditions gives a basis for improved performances. Such "over-learning" provides better memory and use.

My Performance

SA 10.3 Identification of the Need and Provision for Generalization 1 2 3 4 5

Rationale: Since not every human being can experience every possible kind of learning situation, it is important to teach the skill of generalizing. When a principle is mastered it means that repitition is not required, thus allowing a variety of possible applications.

SA 10.4 Utilization of Cues for Search and Memory 1 2 3 4 5

Rationale: Preparing students through proper organization and advance "cueing" can improve the learning situation. The use of inclusive organizers in instruction can simplify observation and "advanced organizers" help a student know what to look for.

SA 10.5 Reduction of Inhibition 1 2 3 4 5

Rationale: Inhibition and forgetting are based on interactive confusion. "Getting mixed up" is a common occurrence but should be reduced in the learning setting. Transfer occurs when two events supplement each other, but its opposite is inhibition.

SA 10.6 Assessment of Transfer 1 2 3 4 5

Rationale: Teachers should teach students how to evaluate their own progress. The best tests of memory and application are real life uses, but achievement tests are also helpful.

Skill Area 11.0 Work Mode

SA 11.1 Analysis of Learning Tasks 1 2 3 4 5

Rationale: The sequence of the performance or the learning task can enhance or deter the learning process, so attention must be given to analyzing what is involved in acquiring the skill or concept being taught.

SA 11.2 Utilization of Objectives 1 2 3 4 5

Rationale: Having determined what is wanted in "task" terms, each behavior is now described in terms of desired student behaviors. As the learner hears descriptive statements about the expected outcomes, each step of a task can be carried out successfully.

SA 11.3 Provision for Practice 1 2 3 4 5

Rationale: In order to maximize the learning experience, the ideal practice schedule must be followed. In general, spaced practice is superior to massed practice but must be arranged so that final performance is better than previous times.

My Performance

SA 11.4, 11.5, 11.6 Maintaining Behavior Impetus and/or Momentum 1 2 3 4 5

Rationale: In order to maintain student interest and accountability for a learning task, a variety of techniques and strategies must be employed by the teacher. The skillful teacher will provide for continuity in instruction as well as protect students from disruptions or awkward transitions in the learning process.

SA 11.7 Initiation of Inductive and Deductive Strategies 1 2 3 4 5

Rationale: Inductive and deductive thinking strategies are both appropriate skills for learners to acquire and are needed if students are to become independent learners.

Skill Area 12.0 Affective Feedback

SA 12.1 Shaping Behavior 1 2 3 4 5

Rationale: More success is obtained through reward than through punishment. When students lack internal control, behavior modification has been used as an effective method to help the learner get into control; this "control" is needed for the student to become an attentive learner.

SA 12.2 Controlling Behavior 1 2 3 4 5

Rationale: Classroom management involves successful behavior management and successful techniques for maintaining discipline. Learning takes place most efficiently and effectively in a well-managed setting.

SA 12.3 Development of Reward Systems 1 2 3 4 5

Rationale: Appropriate praise techniques must be discovered and used in order to effectively encourage a learner.

Skill Area 13.0 Informational Feedback

SA 13.1 Designing Feedback Systems 1 2 3 4 5

Rationale: Research has shown in two recent educational studies that learning can be significantly increased through proper and frequent feedback reporting systems to students. When learners receive and understand information about their performance, real growth can take place.

SA 13.2 Development of Evaluative Devices 1 2 3 4 5

My Performance

Rationale: In order to effectively reach every student, individual and varied kinds of feedback mechanisms must be designed by the teacher. Just as learning styles differ, so will feedback systems vary among learners and must be devised accordingly.

SA 13.3 Utilization of Diagnostic Analysis 1 2 3 4 5

Rationale: The teacher's service to the student is greatly increased by information related to the "why" of his error rather than merely that he/she missed it. Unless the student is given knowledge of the results on his/her trial, he/she will not be able to improve his/her future trials. A given individual usually does not make all possible errors in a task; in fact, learners tend to repeat certain kinds of errors.

SA 13.4 Utilization of Feedback for Program Development 1 2 3 4 5

Rationale: If the evaluation of student achievement can be done on a guidance basis for the assessment of individual educational needs, it can provide the basis for overall instructional planning and strategy.

SA 13.5 Utilization of Statistical Procedures and Data 1 2 3 4 5

Rationale: Statistics can be used to make data more easily handled and more understandable. Appropriate research procedures can be used to describe student's learning and in turn help plan for future instruction.

SA 13.6 Providing Instructional Phrases 1 2 3 4 5

Rationale: Feedback to a student can enrich learning if the correction will immediately give the student a better understanding of the process, or a simplification (preferable non-rote) which can be used to help structure or guide the task or performance. Such quality professional help provides structure for improved transfer of training (see SA 10.0).

SA 13.7 Prediction of Common Errors 1 2 3 4 5

Rationale: Any class assignment which is measurable and which is adapted to the range of ability in the class will result in various patterns of error; therefore, teachers must help students with predictions about common errors through a feedback process.

Skill Area 14.0 Creative Problem Solving

SA 14.1 Fostering Creative Activity 1 2 3 4 5

Rationale: By creating fluency, flexibility, and originality of thought in learners, teachers begin to teach creativity. Imaginations must be stretched if we are to undertake solving societies' most complex problems.

My Performance

SA 14.2 Fostering Scientific Problem Solving 1 2 3 4 5

Rationale: The development of the scientific attitude and method is a tried and true learning, exploration, and creation process. Students need to acquire scientific techniques and skills so that personal insights can be introduced into the problem-solving process. Tolerance for frustration and ambiguity are life-long "basic skills" and students should be assisted in acquiring them.

SA 14.3 Decision Making 1 2 3 4 5

Rationale: The highest form of human mental activity is decision making. Students must learn both factual assessment and valuing as parts of decision making and learn to apply them to their own lives, needs, and experiences.

INTRODUCTION TO THE SKILL OBJECTIVES AND ACTIVITIES

The following pages in this inservice manual represent the primary purpose for its publication and dissemination. The writers' interest in collecting together these materials was to provide YOU, the educator, with ideas about how to structure and develop your own personalized inservice program.

Each page that begins a new skill area also includes objectives which can be met through the completion of activities following the objectives statements. The activities listed represent suggested topics and are not intended to be all-inclusive; and, in the same vein, completion of the activities can be accomplished with varying degrees of sophistication. To help you with deciding which specific activities are appropriate for you, keep in mind that some are simply carried out with few external resources and some are more complex items which call for materials not readily available. More advanced or sophisticated topics requiring extraneous resources are marked "Advanced Activity." Our intention was to provide a variety of ways to learn more about a specific skill area.

Three suggested evaluation procedures follow the section on objectives and activities. Selection of the appropriate evaluation process is left to the individual; however, feel free to either add to the evaluation mechanisms and to also invite colleague or supervisor opinions into the process as well.

Skill Areas 1.1 through 1.6 address the learner's need for being involved in meaningful interpersonal interactions in a variety of environments and situations.

SA 1.1 PROMOTION OF GROUP ACCEPTANCE OF EACH INDIVIDUAL

Objectives

1. To help shy, lonely, or other nonparticipating students become involved and accepted within and among groups in the school setting.

Activities

Teacher activities and professional service to demonstrate one's competence in PROMOTION OF GROUP ACCEPTANCE OF EACH INDIVIDUAL include such items as the following:

1. Feature a "super student" for the day. Activities may include:
   - Posting the super student's picture on the bulletin board
   - Writing a brief history of the student to be posted where others can read it
   - Assigning special responsibilities to the super student
   - Providing opportunity for super student to share something about himself (hobbies, interests, abilities) with others

2. Feature a "new" student who has moved into the school. Activities may include:
   - Special welcome committee to introduce new student to the school, community

3. Prepare "happy notes" to be written to student/teacher. Activities may include:
   - Notes from the teacher to a student telling how much that student has assisted, how much he/she is liked, how he/she is important to the teacher or the group
   - Notes from other students on special birthday or other occasions which describe or tell how that student has assisted the group or other individuals

4. "Recognition" awards from the teacher. Activities may include:
   - "Blue ribbons" for jobs well done
   - Awards assembly

5. Friend-for-the-day. Activities may include:
   - Assigning two or more students (small number) to work together in special activities which are of group importance, such as a social studies report, sports activity, planning sessions

SA 1.2 FORMATION AND UTILIZATION OF WORK GROUPS

Objectives

1. To promote profitable learning interaction for large and small groups, for ability groups, for achievement groups, and for other task groups.

Activities

Teacher activities and professional service to demonstrate one's competence in FORMATION AND UTILIZATION OF WORK GROUPS include such items as the following:

1. Organize a school cleanup committee (project group)
2. Provide flexible grouping for skill development tasks so that a student or students can move from one group activity to other group activities in keeping with ability/task/objective
3. Help student to assist others after he/she has completed assignment or project
4. Select students for special activities such as school plays and competitive sports
5. Develop joint projects combining subject areas
6. Appoint special groups to gather particular kinds of information, i.e., science reports, language arts experiences
7. Select a group to help elderly citizens
8. On a time graph, chart for how long and how many times the teacher uses smaller groups and for what purposes
9. Conduct an activity in which you have a group work in smaller groups within itself
10. Use "buzz" groups, individualized work groups, and project group assignments
11. Use both homogeneous and achievement grouping, including the use of electives
12. Interview a teacher to find out how a class is divided for reading as compared with mathematics instruction
13. Report on how partners are set up for lab work
14. Prepare a plan for an hour where you work with a small group of 3-7 in a corner, while the rest of the group was well occupied (plan instructions and materials)

SA 1.3 MEASUREMENT OF STUDENT SOCIAL RELATIONSHIPS

Objectives

1. To inquire about various interaction ratios, compare discussion and lecture ratios, and study your own interaction ratios.

2. To discover and develop a personal style of teacher leadership in the classroom.

3. To develop a sociometric approach to measure social interaction.

Activities

Teacher activities and professional service to demonstrate one's competence in MEASUREMENT OF STUDENT SOCIAL RELATIONSHIPS include such items as the following:

1. Develop and chart sociograms (advanced project)

2. Conduct teacher interviews with individual students or small groups of students

3. Observe students in their interactions with others to plan for particular needs

4. Use formal instruments such as the "Guess Who" and the Mooney Problem Checklist

5. Use observational information to describe group members

6. Use parental input to assist grouping of students

7. Use the FIS to measure teacher and student talk ratios under different conditions (Flanders)

8. Try to compare different "styles" for yourself

9. Use techniques which encourage more student talk (such as not answering your own questions)

10. Talk with a well-liked student in order to have him/her help you gain friends for an isolated student

11. Understand what is meant by social interaction, sociograph, frustration-aggression hypothesis, roles, cliques, stars, and isolates and use these terms to describe a sociometric chart

12. Set up a seating chart for a classroom based on social group interaction

SA 1.3 cont.

13. Obtain sociographic data by using a series of questions related to varied tasks and chart the results; obtain information regarding "pecking orders" in class and playground

14. Read about the Flanders interaction system in Amidon and Hough's book Interaction Analysis and describe the system

15. Use a checklist of teacher behaviors to be used to describe leadership style

SA 1.4 UTILIZATION OF GROUP DYNAMICS

Objectives

1. To teach students socially acceptable limits in group work.
2. To teach about roles people play in groups and the dynamics of participation in group situations.
3. To help learners work effectively in all kinds of group situations.

Activities

Teacher activities and professional service to demonstrate one's competence in UTILIZATION OF GROUP DYNAMICS include such items as the following:

1. Teach students to take turns
2. Teach students social courtesy and social amenities
3. Define, demonstrate principles of model mutual respect, desired behavior
4. Identify classroom roles and functions
5. Help to establish and define various roles (leadership, supporting) within groups
6. Use role playing to have a vicarious experience
7. Use role reversal
8. Use student government and/or other simulated experiences
9. Make a study of the role of identifying figures in social learning; read Bandura on imitation learning
10. List characteristics of "establishment" figures as compared to "anti-establishment"
11. Systematically observe and record the activities of children who are modeling the behavior of others
12. Note the "ripple effect" (Kounin) by noting what group members do when a member of the group is disciplined
13. Read to define the various roles played by group members in a work group, such as recorder, critic, organizer, etc.
14. Make your own recording form for tallying group interaction on a role basis

SA 1.4 cont.

15. Collect data on interaction using a form you design

16. Conduct a project in such a way as to allow for a variety of leadership changes

17. Review the solutions given by students to the TV program Inside Out

18. Count the variety of solutions given by students to a human relations problem where the final sentence was "what would you do"; (this could cover such problems as cheating, tattling, etc.)

19. Use Glasser's work on Reality Therapy to outline his method of a group circle; see also Lewin's work on group decision

20. List the kinds of activities in which you could accept full group decision

21. Check the output level of groups who have and have not set group goals

22. Conduct a goal-setting experience in which you describe a series of possible activities, and ask the group to decide which should be done first

SA 1.5 INTERACTION WITH PARENTS AND COMMUNITY

Objectives

1. To see how letters and other kinds of communication with parents are and should be used.
2. To attend and note the pros and cons of PTA influence.
3. To become aware of the scope of the volunteer programs in schools.
4. To attend a parent-teacher conference with the objective of noting the kind and the level of interaction.

Activities

1. Persuade community resource persons to assist in classroom
2. Conduct effective parent-teacher-student interaction
3. Provide effective home-school communication (written, telephone)
4. Contribute to newsletters to home
5. Conduct back-to-school night
6. Provide time and opportunity for parents to observe the learning environment and activities
7. Interview representatives of business, government, community, other
8. Organize events which build or cause appropriate home-school-community relationships
9. Mediate a hot discussion on an issue (see article on Cyrus Ching, the Federal mediator) in which a participant cannot make a statement until he has given a brief summary of the previous speaker's point to the satisfaction of the previous speaker
10. Read Stein, Joseph - Effective Personality: A Humanistic Approach
11. Explore some general attitudes and techniques needed to establish harmonious relationships with others
12. Describe the effects of the "hidden agenda" and other kinds of political maneuvering
13. List qualities of self which aid or restrict successful general human relations (lack of empathy non-listening, defensiveness, paranoia, etc.)

SA 1.5 cont.

14. Develop open-ended problem stories for students which aid them to make decisions regarding the welfare of others

15. Read about volunteer programs and PTA action programs

16. Find out a variety of ways for scheduling and conducting parent-teacher conferences (consider some with students present)

17. Formulate a series of letters to parents describing what your program is

18. Get information on the kinds and extents of volunteer activity (make an hours-spent tally)

19. Participate in a parent-teacher conference or a "back-to-school" session where you describe your program to parents; participate in a student activity program to which parents are invited

SA 1.6 COOPERATION WITH COLLEAGUES

Objectives

1. To learn to work more effectively with other staff members.
2. To learn to take on responsibilities related to working with colleagues.

Activities

Teacher activities and professional service to demonstrate one's competence in COOPERATION WITH COLLEAGUES include such items as the following:

1. Work in and with committees such as Program Improvement Committee at Belcourt
2. Report professional activities
3. Lead professional improvement discussions
4. Participate in cooperative and/or team teaching
5. Chair staff meeting
6. Trade assignments and responsibilities
7. Observe and critique other colleagues
8. Study and describe various patterns of team teaching
9. Make a list of pros and cons on the value of team teaching
10. Make a list of the kinds of faculty committees used in a school in a year
11. Set up a schedule of assigned duties for joint and single times of leadership
12. Make a survey of expressed satisfactions and dissatisfactions in teaching teams
13. Contribute to the work of a task committee by clarifying needed assignments, reporting, and giving suggestions as to the form of the report

Skill Areas 2.1 through 2.7 address the learner's need for having a supportive physical environment which includes appropriate use of space, time, and materials.

SA 2.1 UTILIZATION OF IN-CLASS SCHEDULES

Objectives

1. To learn to check and chart time and sequence for each curricular activity, both short-term and long-term.
2. To study varied emphasis for each subject area.
3. To encourage student involvement in scheduling.
4. To become familiar with "open" type scheduling.
5. To compare activity-centered and subject-centered schools.

Activities

Teacher activities and professional service to demonstrate one's competence in UTILIZATION OF IN-CLASS SCHEDULES include such items as the following:

1. Make frequent evaluation and modification of classroom schedules with student involvement
2. Record time spent for classroom routine and teaching-learning
3. Write on paper a long-term class schedule to provide for all learner needs (cognitive, affective, psychomotor)
4. Use a checklist to verify completed class activities
5. Provide appropriate time for each subject and/or unit
6. Develop a group time-use plan
7. Share written schedules with principal in conference session
8. Become familiar with the time given to core vs elective system in your school area (required and elective choices)
9. Describe the present system of time allocation for each part of the day for each subject
10. Set up a schedule for a day and a week, for just how much time you would spend on specified content
11. Extend your schedule to a year's program
12. Keep track of the relative amount of time spent on different curricular areas; (indicate grade level)

SA 2.1 cont.

13. Describe and compare the advantages and disadvantages of these types of schedules: (1) modular, (2) open, and (3) platoon.
    (See The Elementary School Journal, November 1973, Vol. 74, No. 2, Berchuck and Tauss, "The Opening Classroom . . .", pp. 78-83.)

14. Plan an "open" free-choice schedule and indicate the options you would provide.

15. Let a student tell you how he/she plans to spend his/her day.

SA 2.2 ADAPTATION AND MODIFICATION OF SCHEDULES (Total School)

Objectives

1. To identify and learn to deal with common interruptions of a class schedule.

2. To initiate coordination of the scheduling of holiday and other programs.

Activities

Teacher activities and professional service to demonstrate one's competence in ADAPTATION AND MODIFICATION OF SCHEDULES include such items as the following:

1. Coordinate plans for use of time/facilities with other teachers

2. Adjust classroom schedule to school special days and activities

3. Participate in interdisciplinary council scheduling

4. Observe how the general school calendar breaks into the classroom calendar

5. Make a list of common kinds of interruptions

6. Show how general activities can add interest and variety to the school program without ill effects on the schedule

7. Set your priorities by listing those areas which must be made up on the event of interruption

8. Keep a record of time spent away from class by students because of general school activity

9. Ask that P.A. announcements come briefly at the start of the first period of school so that the day's routine has been established

SA 2.3 ADAPTATION OF FACILITIES TO INDIVIDUAL TEACHING STYLE

Objectives

1. To learn how to personalize instruction in a way harmonious with the aims of the school.

2. To learn how to develop and enhance personal teaching styles.

Activities

Teacher activities and professional service to demonstrate one's competence in ADAPTATION OF FACILITIES TO INDIVIDUAL TEACHING STYLE include such items as the following:

1. Organize physical facilities to support personal strengths and needs

2. Use a variety of selected school and community physical resources, i.e., other building, parks

3. Utilize other resources in the total school and use when appropriate to teacher and/or student needs

4. Arrange seats, rugs, walls, furniture to meet personal teaching style

5. Modify materials to meet personal teaching style

6. Counsel with principal and other teachers in joint planning and modification of physical facilities

7. Exchange classrooms with other teachers

SA 2.4 EXPANSION OF THE LEARNING ENVIRONMENT

Objectives

1. To understand how the student's experiences can be enlarged beyond the classroom.

2. To make better use of community and commercial resources.

Activities

Teacher activities and professional service to demonstrate one's competence in EXPANSION OF THE LEARNING ENVIRONMENT include such items as the following:

1. Plan and conduct field trips

2. Bring resources of the community into the classroom

3. Utilize special kits and other developed resources

4. Inventory (use, develop, contribute) community personnel resources and roles, list address, telephone numbers, and so forth

5. Read and ask teachers about the educational implications of field trips, visitors, projects, and simulations

6. Formulate a list of visitors you would like to see invited to instruct or entertain your students

7. Make a study of student interest in visitors who will describe different occupations

8. Take a field trip with students helping them to observe points of interest

SA 2.5 UTILIZATION OF MATERIALS AND EQUIPMENT

Objectives

1. To learn to set up and operate a variety of commonly used equipment.
2. To make a commitment to use a variety of new materials.

Activities

Teacher activities and professional service to demonstrate one's competence in UTILIZATION OF MATERIALS AND EQUIPMENT include such items as the following:

1. Use overhead projectors and other kinds of visual and auditory equipment to meet teaching-learning needs
2. Develop media checklist to monitor and evaluate use of various equipment
3. Help students to use appropriate media
4. Help students produce media for classroom and personal use
5. Develop personal skills such as photography
6. Summarize manuals of operation on the more commonly used basic media equipment
7. Make a collection of sets of instructions for operating various kinds of equipment
8. Make a survey of the most common problems occurring in setting up and operating audiovisual equipment
9. Make a slide-cassette program

SA 2.6 DEVELOPMENT OF INTEREST CENTERS AND LEARNING CENTERS

Objectives

1. To observe and develop the centers for the purpose of collecting samples in brief form for later use with bulletin boards, show and tell materials, and more complex centers.

Activities

Teacher activities and professional service to demonstrate one's competence in DEVELOPMENT OF INTEREST CENTERS AND LEARNING CENTERS include such items as the following:

1. Construct a variety of bulletin boards
2. Develop learning and student carrels
3. Encourage student-made project centers
4. Support and develop social studies and science fairs
5. Promote special events such as fashion shows
6. Look into a variety of books and magazines which give suggestions for making bulletin boards, exhibits, etc.
   Sources: Teacher (Ed.), K-Eight, Instructor Learning
7. Describe a variety of interest and learning centers plans which you are putting into your own resource file
8. Keep a tally on time students spent at two kinds of interest centers
9. Set up an interest or learning center in your classroom each season
10. Set up a series of coordinated centers
11. Draw a floor plan of proposed centers
12. Compare a center's work with a lecture over the same materials
13. Develop instructions for use in a center

SA 2.7 CONTROL SYSTEMATIZING OF PHYSICAL FACTORS AND RECORDS

Objectives

1. To become familiar with modern and more functionally designed school facilities.
2. To note how space is adapted for learning.
3. To become familiar with various materials and procedures used in the control of the school environment.

Activities

Teacher activities and professional service to demonstrate one's competence in CONTROL SYSTEMATIZING OF PHYSICAL FACTORS AND RECORDS include such items as the following:

1. Study a variety of principles to be used in planning educational space and color
2. Draw a floor plan for a school with all facilities in some innovative position
3. List several ways in which you could help a student make use of an individual study carrel
4. Walk through a modern building and make comments about how you would use the space
5. Assign students appropriate housekeeping tasks
6. Use biofeedback systems to maintain control (Advance Activity)
7. Select appropriate furniture for size and age of students
8. Keep and analyze records of physical conditions to modify environment
9. Use space arrangement for traffic control and special needs of handicapped
10. Plan space for group and individual activities

Skill Areas 3.1 through 3.5 address the learner's need for gaining direction and security from the society/culture surrounding him/her.

SA 3.1 PROMOTION OF DEMOCRATIC TASKS, VALUES, AND PROCESSES

Objectives

1. To find ways to help students participate more effectively and actively in their democratic heritage.

Activities

Teacher activities and professional service to demonstrate one's competence in PROMOTION OF DEMOCRATIC TASKS, VALUES, AND PROCESSES include such items as the following:

1. Select and recognize in appropriate ways, such as a bulletin board, "good citizen" of the week (or of the class, or of the school)
2. Organize a student council
3. Promote development of class rules and regulations by students
4. Provide class time to enable students to plan activities to be conducted during free time
5. Utilize student input in planning daily activities and curricular experiences
6. Provide opportunity for the practice of democratic skills in simulated activities
7. Encourage the development of attitudes which support democratic principles

SA 3.2 UTILIZATION OF CULTURAL UNIQUENESS AND CULTURAL PLURALISM

Objectives

1. To reinforce the interest and needs represented in different sociocultural backgrounds.
2. To compare and contrast two or more cultural views of education.
3. To find a core of profitable educational experiences for various ethnic groups.

Activities

Teacher activities and professional service to demonstrate one's competence in UTILIZATION OF CULTURAL UNIQUENESS AND CULTURAL PLURALISM include such items as the following:

1. Provide opportunities for students and/or community to present, describe, or explain their unique personal backgrounds, i.e., family traditions, community or local, professions or vocations, ethnic origin
2. Interview students to learn unique strengths/contributions
3. Inventory or assist students to inventory the community to determine contributions of ethnic and cultural groups to the total "American culture"
4. Introduce a member of a different culture in positive ways to a class group
5. Define culture
6. List and give examples of developmental tasks (Havighurst) Define social-status (Warner, Eells)
7. Make a list of things which represent unique cultural needs and values
8. Ask about the particular activities a student from another culture has participated in

SA 3.3 CONSTRUCTIVE INTERACTION WITH SOCIETAL/CULTURAL FORCES

Objectives

1. To explore attitudes and feelings about people by exposing students to other cultures.

2. To enhance awareness of life in other cultures.

Activities

Teacher activities and professional service to demonstrate one's competence in CONSTRUCTIVE INTERACTION WITH SOCIETAL/CULTURAL FORCES include such items as the following:

1. Use simulation games and activities such as "Star Power" or "Blue Eye, Brown Eye"

2. Demonstrate openness and lack and/or recognition of bias in selection of curricular content and processes

3. Provide opportunity for students to become personally involved in change and adaptation within the value system of the local and regional areas

4. Demonstrate an understanding of the nuance of language in describing, explaining, and interpreting the local customs and values

5. Incorporate the cultural heritage of the students within the curriculum

6. Encourage students to gain understanding and develop appropriate attitudes through role-playing activities

7. Organize the curriculum to enable students to understand time-people-place relationships of culture

8. Make an exhibit with some particular kind of food or clothing related to a certain culture

9. Note and list particular difficulties that a student of another culture has in a given time period in a classroom or school

10. Foster a positive relationship between two students of varied backgrounds

11. Review terms used to describe education- and culture-related concepts such as "two-track system," "terminal education," "vocational education," etc.

12. Make a list of questions you would use to make your own cultural analysis of a student or class

SA 3.3 cont.

13. Make a list of occupations and jobs in your community as related to cultural opportunity

14. Give or check the results of a socioeconomic survey (such as the Sims)

15. Gather a set of newspaper reports on a series of events reflecting a major-minor issue

16. Participate in a professional or community meeting in which a cultural conflict is discussed

17. Look into studies which describe the educational achievement of students with varied sociocultural backgrounds

SA 3.4 COMPLIANCE WITH LAW

Objectives

1. To help students understand and successfully adapt to the judicial process.

Activities

Teacher activities and professional service to demonstrate one's competence in COMPLIANCE WITH LAW include such items as the following:

1. Select curriculum content and develop curricular processes in compliance with the law, i.e., mandated courses

2. Assist students in complying with established laws and other guidelines

3. Demonstrate an awareness of due process through teacher-student discussion of principles, examples, and by other appropriate means

SA 3.5 DEVELOPMENT OF CURRICULAR SCOPE AND SEQUENCE

Objectives

1. To find the implication of the principle that school curriculum is ultimately chosen by the culture in which it is found.
2. To relate the effects of custom to school curriculum practices.
3. To locate areas of agreement and conflict.
4. To relate the effects of law, custom, etc., to school practices.
5. To learn the common dimension of scope and sequence charts.
6. To analyze the effect of scope and sequence charts on the total school curricular integration.

Activities

Teacher activities and professional service to demonstrate one's competence in DEVELOPMENT OF CURRICULAR SCOPE AND SEQUENCE include such items as the following:

1. Identify the pro and con of issues which influence the curricular content
2. Select texts and other instructional materials which identify facts, attitudes, and skills valued by the society
3. Modify, correct, adjust instructional materials to meet needs of students
4. Identify current social forces within the community which influence or should influence the curriculum
5. Make plans to implement state course of study guides
6. Locate your current topic or area of study in the state scope and sequence
7. Estimate the relative time frame for varied units in a sequence
8. Ask student opinions in what they would like included in courses and what courses they would like
9. Discuss the issue of process versus content in a faculty or committee meeting

SA 3.5 cont.

10. Read, study, and report on how one school district approved a culture-based issue (such as bonding) or curriculum changes

11. List the kinds of cultural problems a teacher may encounter in introducing a new topic

12. Make a tally of the frequency of varied problems which have occurred in a school, which have had cultural implications

13. Make a study of the problems considered and the solutions reached in a series of school-board actions

14. Participate in a planning session in which a particular curricular issue is on the agenda

15. Define an all-subject scope and sequence chart as compared to a single-subject chart

16. Illustrate the two dimensions of a scope and sequence chart

17. List all the concepts to be covered in a subject in a given year

18. Note whether the proposed curriculum is covered in a given year or other time period (Evaluation)

19. Meet with two or more teachers of the same grade to discuss what content should be included in the units of a particular subject they plan for a given year (Planning)

20. Use a scope and sequence chart for the basis of presenting an overview of preview of work to come

21. Look into new ways of organizing units of study in a major field, as suggested by authorities in the field

22. Select a new combination of concepts to represent a variety in the proposed sequence as presentation

23. Work with a committee to develop or revise a scope and sequence

24. Find out the extent of agreement in a faculty on the importance of a given concept of principle in a scope and sequence chart

Skill Areas 4.1 through 4.5 address the learner's need for stimulas in the learning situation, i.e., the need for a compelling, inspiring reason to focus attention on the learning task.

SA 4.1 EFFECTIVE COMMUNICATION

Objectives

1. To become familiar with a variety of presentation modes, such as telling, role playing, discussing, simulating, modeling, demonstration, etc.

2. To become aware of the need to define new terms, to speak clearly so the words are understood, to present materials in a defined (or numbered sequence) order.

Activities

Teacher activities and professional service to demonstrate one's competence in EFFECTIVE COMMUNICATION include such items as the following:

1. Video or audio record teacher presentation and analyze or critique communication skills

2. Model effective communication techniques by using appropriate verbal and body language

3. Select and use appropriate vocabulary, idioms, figures of speech in both verbal and written communication

4. Identify and eliminate distracting mannerisms and habits which reduce or limit effective, pleasing communication

5. Monitor and control appropriately teacher talk-student talk ratio

6. Develop special communication skills, i.e., Rogerian Listening Skills

7. "Get the feel" of varied modes of presentation by trying them out

8. Study the process of articulation and voice projection. Describe the elements of an effective audience-speaker communication

9. Underline in red the concepts (words) you anticipate to require special attention in a lesson (Check-off plan)

10. Check and tally the "clarity" technique used by a teacher (yourself if microteaching or an observer if available)

11. In presenting a lesson, consciously (but not self-consciously) pronounce each sentence clearly

12. In presenting a lesson, consciously define concepts where students show evidence of confusion

SA 4.1 cont.

13. Read about and report the pros and cons, advantages, and limitations of varied modes of presentation

14. Develop "how to do it" sheets for ways in which to execute and to take advantage of various modes of presentation

15. Assess the effectiveness of one mode of presentation (a movie which is simulation) over another (such as an audio-tape mode)

SA 4.2 PROMOTION OF STUDENT INTEREST

Objectives

1. To collect and use procedures and methods which promote student interest.

Activities

Teacher activities and professional service to demonstrate one's competence in PROMOTION OF STUDENT INTEREST include such items as the following:

1. Capitalize on the "teachable moment," i.e., student interest
2. Utilize "novel" situations, materials, approaches to introduce new areas of study
3. Relate curricular experiences to out-of-school activities
4. Obtain student commitment to task at home
5. Provide a variety of activities from which students may select, as they are interested, to reach a specific goal
6. Begin classroom activities promptly
7. Survey students' interests to guide future planning
8. Promote student acceptance of responsibility for learning
9. Provide "fun" teaching-learning activities
10. You will want to look for the words DIRECTIONS, INSTRUCTIONS, GAMES, THINGS TO DO, etc. (We can call these educational "set-ups")
11. Begin a collection of "teaching games"
12. Develop a set of instructions which refer to an educational activity related to an "interest center"
13. Try different sets of directions for a given assignment and check the comparative effectiveness of the two
14. In giving instructions consciously, make certain that you (1) point out what the student should do first, (2) how to use the material, (3) what the successful behavior is to be (see also SA 11)

SA 4.3 EMPLOYMENT OF SIMPLE AND COMPLEX ASSOCIATIONS

Objectives

1. To detail the steps of conditioning and conditioned responses.
2. To note the importance of context on immediate association.

Activities

Teacher activities and professional service to demonstrate one's competence in EMPLOYMENT OF SIMPLE AND COMPLEX ASSOCIATIONS include such items as the following:

1. List and help students develop appropriate concepts of common items and phrases of the subject area
2. Develop a lesson which meets various cognitive development levels of students
3. Use formal or informal pretests to identify student skills, abilities, knowledge
4. Use scientific or other models to simulate/demonstrate the actual thing or incident
5. Use examples of micro-groups to explain or describe micro-groups, i.e., family-community, atom-universe
6. Compare school groups of functions with similar out-of-school groups or functions
7. Use analogies
8. Test the steps in conditioning as described by Pavlov and Guthrie and add the terms UCS (ads), NS, CS, extinction, and spontaneous recovery to your frame of reference
9. Show how meaningful context makes instant meaning possible by direct association
10. Set up a plan for teaching a new word (such as DOG) by associating it with something known (such as a picture of a dog)
11. Set up an experiment to compare using definition and analogy as compared to presenting information directly
12. Use both kinds of association (conditioned and direct telling) in giving a lesson

SA 4.4 UTILIZATION OF SIMULATION

Objectives

1. To discover and implement a variety of ways to use simulation.
2. To develop simulation activities for use in individual lessons or subject areas.

Activities

Teacher activities and professional service to demonstrate one's competence in UTILIZATION OF SIMULATION include such items as the following:

1. Develop simulation activities to stimulate student interest and/or to encourage student participation
2. Create, with students, a new game which they test by playing
3. Locate simulation games which allow students to experience vicariously certain kinds of real-life situations
4. Develop simulation models such as bridge building, houses, soap box derby
5. Utilize simulated survival as a means to help students understand roles
6. Simulate tribal council meetings

SA 4.5 PROGRAMMING OF STRUCTURE

Objectives

1. To establish some limits to the use of written programs for instruction.
2. To know the major kinds and varieties of programs (Linear, branching).
3. To make each element of a concept series explicit and integrated by putting it into program form.
4. To learn how to sequence a set of concepts in a program by considering and evaluating sequence. What should come first?
5. To check the language for needed prerequisite concepts to insure the relation of difficulty to readiness level.

Activities

Teacher activities and professional service to demonstrate one's competence in PROGRAMMING OF STRUCTURE include such items as the following:

1. Pace instruction to maintain student interest and provide a variety of stimulating activities
2. Write a program for a student (or students) who need directed, controlled instruction
3. Give directions and make assignments in sequential order to maintain student interest
4. Provide materials which permit students to move through an experience while maintaining student interest
5. Establish a system to enable students to develop personal interests within the framework of the curricular program or objectives
6. Use data from "misses" on parts of a lesson to suggest changes in difficulty, level, expansion, and rephrasing (ties in with SA 13)
7. Report on the hierarchic theory of Gagne which implies increasing levels of complexity in learning
8. Make a list of terms in the lesson which you are assuming to be prerequisite and known
9. Try different sequences of concepts and compare their relative effectiveness by getting a tally of misses

SA 4.5 cont.

10. In presenting a lesson, try various rates, slower and faster

11. In presenting a lesson, call attention to the order of ideas you are presenting, such as "the first point is . . ., the second point is . . ."

12. Read to understand the use of such terms as "frames," "immediate knowledge of results," "linear," "branching," "error-rate," criterion frame, data display, step-size, "scrambled book"

13. Make a linear program and, after using it, change it to branching style

14. Make a comparison of the effectiveness of various step-sizes in presenting lessons

15. Sit with a student in a diagnostic-tutorial situation in which you have him/her tell you his/her responses to your program in order to revise it

16. Listen to a student orally give responses to your program, simply to enjoy watching him/her make progress

Skill Areas 5.1 through 5.7 address the learner's need for sensory-motor health and a general sense of well-being.

SA 5.1 IDENTIFICATION OF AND ADJUSTMENT TO AUDITORY HANDICAPS

Objectives

1. To become familiar with the effects of auditory disability.
2. To utilize means of determining kinds and degrees of auditory disability.

Activities

Teacher activities and professional service to demonstrate one's competence in IDENTIFICATION OF AND ADJUSTMENT TO AUDITORY HANDICAPS include such items as the following:

1. Identify and/or refer students with physical handicaps to qualified professionals who can diagnose and prescribe
2. Adjust physical facilities to needs of students who have physical handicaps, such as arrange furniture
3. Plan activities suitable for students who have physical handicaps
4. Develop curricular programs designed to help students compensate for physical handicaps
5. Identify and adapt physical conditions which limit participation of physically handicapped students
6. Use discrimination tests, i.e., the Wepman's Back-to-Back Test or the Snellen Test
7. Make or use a "sound tape" to use in testing students' ability to discriminate sounds
8. Observe students and record behavior which indicates a possible handicap, i.e., hearing loss, visual limitations
9. Prepare a program to use balance beam, bean bag, balls, and other similar equipment to diagnose
10. Learn about different kinds of deafness
11. Find out what kinds of hearing tests can be given
12. Learn of the effects of deafness on speech
13. Found out the learning capabilities of a given student

SA 5.1 cont.

14. Make an informal test to locate students with deafness

15. Study the limitation of the use of a hearing aid and the effect on a student's behavior by making an individual case study

16. Talk clearly and distinctly to the deaf (partially) student

17. Encourage a student to make good use of his hearing aid; tie in to "self" by developing attitudes of worth in the deaf student

18. Tie in to group treatment of a deaf student

SA 5.2 IDENTIFICATION OF AND ADJUSTMENT TO VISUAL HANDICAPS

Objectives

1. To become familiar with the effects of visual disability.
2. To utilize means of determining kinds and degrees of visual disability and to appropriately remediate these disabilities.

Activities

Teacher activities and professional service to demonstrate one's competence in IDENTIFICATION OF AND ADJUSTMENT TO VISUAL HANDICAPS include such items as the following:

1. Learn about different kinds of visual disabilities
2. Find out what kinds of seeing tests can be given
3. Learn of the effects of visual disabilities; find out the learning capabilities of a given student
4. Make an informal test to locate students with visual disabilities
5. Study the limitation of the use of a visual aid and the effect on a student's behavior by making an individual case study
6. Talk clearly and distinctly to the blind (partially) student
7. Encourage a student to make good use of his visual aid
8. Tie in to "self" by developing attitudes of worth in the blind student
9. Tie in to group treatment of a blind student
10. Visit a school for the blind to become familiar with their materials and procedures for instruction

SA 5.3 RECOGNITION OF AND ADJUSTMENT TO MOTOR HANDICAPS AND PHYSICAL DEVELOPMENT PATTERNS

Objectives

1. To become familiar with the effects of motor coordination disability.

2. To utilize means of determining kinds and degrees of motor coordination disability and to remediate them properly.

Activities

Teacher activities and professional service to demonstrate one's competence in RECOGNITION OF AND ADJUSTMENT TO MOTOR HANDICAPS AND PHYSICAL DEVELOPMENT PATTERNS include such items as the following:

1. Learn about different kinds of motor coordination disabilities

2. Find out what kinds of motor coordination tests can be given

3. Learn of the effects of motor coordination disabilities

4. Find out the learning capabilities of a given student

5. Make an informal test to locate students with motor coordination disabilities

6. Study the limitation of the use of a motor coordination aid and the effect on a student's behavior by making an individual case study

7. Talk clearly and distinctly to the motor coordination student

8. Encourage a student to make good use of his/her motor coordination aid

9. Tie in to "self" by developing attitudes of worth in the motor coordination student

SA 5.4 IDENTIFICATION OF AND ADJUSTMENT TO VARIED HEALTH PATTERNS

Objectives

1. To become familiar with the effects of motor coordination disability.

2. To become familiar and to practice good health and safety "rules."

Activities

Teacher activities and professional service to demonstrate one's competence in IDENTIFICATION OF AND ADJUSTMENT TO VARIED HEALTH PATTERNS include such items as the following:

1. Observe students for disease systems such as body rash, apathy, pain, headache, bruises, and wounds

2. Develop a plan for systematic health checks of students

3. Help student develop a checklist which identifies/helps him/her recognize symptoms of illness

4. Locate and read state laws pertaining to the battered child

5. Plan and implement a program to teach students how to deal with the situation or with problems of child neglect or child abuse

6. Participate as appropriate with other teachers, professionals, and parents in the sharing of information concerning the health conditions of students

7. Recognize the special needs of the preadolescent and the adolescent for body cleanliness and provide opportunity for student showers and other activities

8. Collect information about common childhood diseases

9. Adapt a variety of screening suggestions on "signs of illness to watch for" for your own use

10. Use a "symptoms" chart as a screening device to pick up various illnesses, and keep a record of the rate of occurrence in a school year

11. Study ways to take immediate action to ease the problems of a student with a health problem (including emergency action for nosebleed, sprain, broken bones)

12. Be sure your actions are consistent with the law and school policy

SA 5.5 ADAPTING TO ENERGY LEVELS

Objectives

1. To recognize individual differences in ability to concentrate.

2. To learn how to vary sensory input and to avoid satiation.

Activities

Teacher activities and professional service to demonstrate one's competence in ADAPTING TO ENERGY LEVELS include such items as the following:

1. Schedule curricular activities to take advantage of students' energy levels

2. Use a variety of physical and mental activities to change the pace or to provide physical rest, such as "Simon Says"

3. Observe students to identify individual biorhythms and plan curricular activities to take advantage of student energy

4. Develop a set of rules which provide free choice of students for rest and activity periods

5. Write an essay on the theme "A Change is as Good as a Rest"

6. Develop your list of "Change of Pace Activities"

7. Correctly interpret signs of tiredness and forced interest

8. Make and record observations of the interest span of your strongest and weakest students

SA 5.6 PROVIDING OF PROGRAMS FOR HEALTHFUL LIVING

Objectives

1. To recognize and practice the need for careful use of medicines.
2. To study and point out the risks related to "mind" drugs.
3. To help students develop a comprehensive health program.

Activities

Teacher activities and professional service to demonstrate one's competence in PROVIDING OF PROGRAMS FOR HEALTHFUL LIVING include such items as the following:

1. Develop a program of instruction to help students learn and apply principles of nutrition
2. Develop experiments with students to observe and record physical growth of plants/animals/people
3. Identify drug, alcohol, tobacco, fad food issues, and problems and plan appropriate curricular programs
4. Initiate a program to involve specialists in curricular activities, i.e., county health agent, school nurse, physician, dietitian
5. Survey community needs and resources for lifetime participation in physical activities and plan curriculum to teach correct participation in sports activities
6. Arrange for a discussion between proponents of "natural foods" and foods produced through high use of inorganic chemicals
7. Prepare a healthful meal from indigenous plants and animals which are food sources
8. Arrange a month-long jogging activity which culminates in "jogging on paper" from Belcourt to Grand Forks
9. Sample information on the effects of various drugs
10. Describe ways of presenting drug information which do not inadvertently suggest the use of drugs
11. Make a survey on the attitudes of your students to drugs and alcohol
12. Lead a discussion on some case histories of drug users

SA 5.6 cont.

13. Describe and model a good exercise program

14. Evaluate the nutritional intake of a student

SA 5.7 DEMONSTRATION OF SAFETY PRACTICES

Objectives

1. To explore ways of making safety education more effective.
2. To demonstrate and model safety practices within and outside the classroom.

Activities

Teacher activities and professional service to demonstrate one's competence in DEMONSTRATION OF SAFETY PRACTICES include such items as the following:

1. Make a list of potentially dangerous places within the school, home, and/or community
2. Utilize safety skills of Boy Scouts and Girl Scouts to assist in instructional program
3. Design alternate plans for emergency evacuation of the school building and assist students to develop procedures for safety practices
4. Simulate a variety of emergency situations and develop procedures for meeting the emergencies

Skill Areas 6.1 through 6.4 address the learner's need for developing intellectual aptitude and expanding intellectual capabilities.

SA 6.1 IDENTIFICATION OF INTELLECTUAL READINESS

Objectives

1. To learn to use both formal and informal estimates of aptitude to help a student plan his/her educational program.

2. To become familiar with informal estimates of aptitude.

3. To become familiar with estimates of aptitude based on psychological instruments in areas of (a) intellect, (b) temperament, (c) motor skills, (d) special aptitudes in music and art.

Activities

Teacher activities and professional service to demonstrate one's competence in IDENTIFICATION OF INTELLECTUAL READINESS include such items as the following:

1. Develop a plan to utilize teacher-made and/or standardized diagnostic instruments to identify student readiness, i.e., reading readiness tests, large muscular development test

2. Identify and list intellectual readiness factors students need in order to be successful in certain tasks such as making generalizations or perceiving the differences among the leaves of various kinds of trees in the local community

3. Prepare a summary statement or a checklist to describe students' intellectual readiness to parents or to another teacher

4. Administer readiness tests and informal inventories to collect information which identifies student readiness and develop curricular activities to meet students' readiness levels

5. Make a list of your students, putting them into three ability levels (subjective, based on class activity, and observation)

6. Make a general summary of the scores your group has made on a given aptitude test

7. Discuss the influence of modern math on lowered computational scores on nationally normed test (in a professional group or with parent)

8. Look at aptitude test results as a means of estimating the scholastic potential of a given student

9. Collect examples of a student's work which gives some evidence of his/her aptitude

SA 6.1 cont.

10. Compare a student's scores on an aptitude test with his/her corresponding achievement in school

11. Talk to a student about his/her highest and lowest profile scores

12. Make a study of the factors covered in commonly used aptitude tests

13. Describe the differences between aptitude, achievement, and interest tests

SA 6.2 PROMOTING INTELLECTUAL GROWTH

Objectives

1. To learn about and then compare a multifactor theory with a "g" factor theory.

2. To plan educational activities reflecting a variety of intellectual aptitudes.

3. To extend the aptitude concept to Calvin Taylor's "totem" approach.

Activities

Teacher activities and professional service to demonstrate one's competence in PROMOTING INTELLECTUAL GROWTH include such items as the following:

1. Identify the intellectual needs of students in the class and discuss these needs with other professionals and/or parents

2. Promote the development of intellectual talents such as comparing the divergent and convergent levels of intellectual activity

3. Read the Guilford Theory or other model and use it to help students develop their intellectual capacity

4. Identify a variety of intellectual activities (puzzles, brain teasers, mind stretchers) to enrich curricular programs

5. Implement an intellectual talent search among students

6. Describe the Taylor "totem" system (write to Dr. C. A. Taylor, University of Utah, Salt Lake City, Utah)

7. Look up some of the behaviors being tested in some of the cubes in the Guilford model (see Guilford, J. P., The American Psychologist)

8. Draw a graph of the Guilford theory for your notes from a general psychology book

9. Make a comparative study of the kinds of mental operations given in Guilford (see Meeker) with the tasks you are covering in a given unit

10. Talk to a student about some of his or her particular individual talents

SA 6.3 RECOGNIZING AND ADAPTING TO STAGES OF MENTAL GROWTH

Objectives

1. To describe the Piaget Stage Theory in a series of four major steps.

2. To develop a list of activities which are age related to developmental stages.

Activities

Teacher activities and professional service to demonstrate one's competence in RECOGNIZING AND ADAPTING TO STAGES OF MENTAL GROWTH include such items as the following:

1. The teacher will collect examples of behaviors which represent various developmental levels

2. The teacher will compare behaviors of students at the concrete level (Piaget) with those at the formal level

3. The teacher will make a test of activities appropriate to students at various levels (Piaget)

4. Observe differences in mental development of students in your class

5. Adjust the scope and sequence of a subject area to meet the intellectual readiness levels of students

6. List and describe the four stages in the cognitive development theory of Piaget

7. Select activities in a major subject interest area of yours just below, in, and just above the present stages

8. Try several ways of increasing and/or testing for "conservation"

9. In giving a lesson, probe for prerequisite knowledge and probe for the limits of present knowledge in members of your group

SA 6.4 PROVISION FOR EXCEPTIONALITY

Objectives

1. To describe and evaluate the special needs of exceptionally bright students.

2. To understand and describe patterns of behavior in M. R. (educable retarded) children.

3. To probe into learning problems encountered by L. D. (learning disabled) students.

Activities

Teacher activities and professional service to demonstrate one's competence in PROVISION FOR EXCEPTIONALITY include such items as the following:

1. Write a personal definition of "exceptionality" which identifies or includes implications for meeting learner needs in the classroom

2. Provide appropriate curricular content and activities for all children within the class--slow learners, fast learners

3. Brainstorm mainstreaming methods with staff and other professionals

4. Read and become effective in meeting the intent of P. L. 94-142

5. Arrange for opportunities so that "exceptional" children may participate in specific, appropriate activities at other grade levels or in other classrooms

6. Provide learning centers in which activities are adaptable to various levels of intellectual abilities and skills

7. Explain "exceptionality" to parents and suggest procedures or activities they may use with their own children

8. Develop a plan to control the stimulus (pacing) for the exceptional child

9. Define degrees of mental retardation; describe what is meant by being "gifted"

10. Make a composite list of some expected characteristics of M. R. and gifted (your own selection)

11. Compare and contrast the fine motor skills and the coarse motor skills needed to complete a particular task (fairly complex)

12. Present a phase of music satisfying to a student who is "tone deaf"

Skill Areas 7.1 through 7.5 address the learner's need for a supportive, actualizing self-concept.

SA 7.1 ESTIMATION OF STUDENT INTERESTS AND VALUES

Objectives

1. To understand concepts used to describe dimensions of self-concept.
2. To become familiar with techniques (including Q-sort) used to measure self-concept.
3. To synthesize the implications of real vs ideal self for self and with students.

Activities

Teacher activities and professional service to demonstrate one's competence in ESTIMATION OF STUDENT INTERESTS AND VALUES include such items as the following:

1. Select and use standardized instruments (Kuder Preference Inventory) to identify student interests
2. Utilize value-clarification techniques to help students identify and/or rank their values
3. Plan an "interest-sharing time" with students during which they tell about or demonstrate their interests, such as a hobby fair
4. Provide opportunity and time for students to explore and/or develop other interests
5. Organize a hobby club, a dramatic club, a newspaper staff, a science club, a vocal or instrumental group, an athletic team to encourage students to develop interests in a variety of areas
6. Develop and teach a series of lessons based upon the taxonomy of the affective domain to help students internalize and/or clarify values
7. Get some commonly used personality tests and describe them
8. Having described present self-readiness, plan a logical next step for a student or class
9. By using pre- and post-tests of interest, determine the rate of progress during a time period
10. Interpret a set of interest or values test results to a student
11. Become familiar with some basic ways to describe self-concept
12. Read about real and ideal self (Rogers)

SA 7.1 cont.

13. Develop a set of questions to be used in your own Q-sort

14. Relate the difference between real self and ideal self to frustration level

15. Help a student to understand the difference between what one "is" and what he/she wants to become

16. Read to find out why the measurement of personality has so many interesting variations

SA 7.2 MEASURING AND PROMOTING MENTAL HEALTH

Objectives

1. To be able to define and promote mental health.

Activities

Teacher activities and professional service to demonstrate one's competence in MEASURING AND PROMOTING MENTAL HEALTH include such items as the following:

1. Plan a program in health (physiology) classes in which students have opportunity to learn about their physical development and what kinds of changes they may expect or anticipate in body shape, size, function, and the influence of body change upon emotions and social relationships

2. Organize a parent study group whose purpose is to help promote good mental health among children

3. Develop a schedule which permits some teacher-student interactions on a personal level each day during which the teacher functions in the role of an adult friend (and confidant, if desirable)

4. Develop a program using role playing, dramatics, bibliotherapy, creative writing, and other forms of instructional activities to help students distinguish between their real self and their imagined or make-believe self

5. Have children list leisure time activities and help them participate in worthwhile ones

6. Develop a checklist of mental health symptoms

7. Define, with students in discussion and activities, a mental health program

SA 7.3 PROMOTION OF SELF-DISCOVERY

Objectives

1. To help students understand the inner dynamics of the self process.
2. To learn to express interest and acceptance of students.
3. To relate self-development to maturity in game playing.
4. To relate self-concept to personality adjustment.
5. To relate self-concept to over and under achievement.

Activities

Teacher activities and professional service to demonstrate one's competence in PROMOTION OF SELF-DISCOVERY include such items as the following:

1. Develop a series of curricular experiences which provide time and motivation for students to keep personal journals, to write in personal diaries, and to express personal feelings about themselves
2. Expand the world of work or the career education programs to assist students in their identification of personal strengths, goals, aspirations, expectations
3. Initiate a "free choice reading experience" in which students select books, magazine articles (sports stories are particularly good), and other print sources (including encyclopedias) of a biographical or autobiographical style to discuss how others felt about themselves and how they learned to live comfortably with themselves; provide opportunity and time for discussion and sharing, including value clarification, if appropriate
4. Teach students skills of outlining, paragraphing, listing to use in compiling "all about me" booklets
5. Teach children to prepare a personal vita and have them "apply" for a position in which they are interested; include interview with "prospective" employer
6. Help students develop a sense of identity by finding themselves in the family tree
7. Set up a checkup sheet which tests traits of under and overachievers to be used in estimating these characteristics in your group
8. Compare the scores of a group of students on an achievement test with those of an aptitude test, and give the implications

SA 7.3 cont.

9. Avoid instances (with young and older students) where you say "You aren't ready to do that!"

10. Help a student to relate his/her level of aspiration to a realistic look at the amount of effort needed to reach his/her goal

11. Read Games People Play and What Do You Say After You Say Hello (Berne), TA for Kids, along with I'm OK, You're OK (Harris) to understand the PAC (Parent, Adult, Child) process

12. Make a PAC (Parent, Adult, Child) chart in which you develop your own phrases to express the elements found in transactional analysis

13. Observe and record varieties of dress as related to personality

14. Engage in a complementary transaction with a student and an adult (see Transactional Analysis)

15. Read to understand the dynamics of "level of aspiration" (Sears)

16. Describe over and under achievement

SA 7.4 DEVELOPMENT OF RAPPORT

Objectives

1. To understand how a good relationship is based on trust.
2. To learn to provide students with experiences that promote mutual trust.

Activities

Teacher activities and professional service to demonstrate one's competence in DEVELOPMENT OF RAPPORT include such items as the following:

1. Read about, become trained in the use of the "Magic Circle" technique to help establish rapport between/among student(s) and teacher
2. Model rapport-building actions such as openness, friendly attitude, honesty, fair treatment of each person, keeping confidence, sharing, trusting
3. Develop and implement a plan of operation through which you become acquainted with an adult friend of each student
4. Take the initiative in establishing teacher-parent-student relationships before problems develop or in spite of problems which may have developed
5. Learn the names of all students and address them by their preferred name during the first week of the school year

SA 7.5 PROMOTION OF GROWTH OF SELF

Objectives

1. To learn to use both directive and nondirective methods of talking to students (Rogers)

2. To describe the self-actualization process.

Activities

Teacher activities and professional service to demonstrate one's competence in PROMOTION OF GROWTH OF SELF include such items as the following:

1. Identify the hierarchy of needs which leads to self-actualization and plan activities to help students move through the hierarchy in sequential order (Maslow)

2. Help students establish realistic personal and/or curricular goals and obtain commitment to attainment of these goals through a systematic, appropriate process (Glasser)

3. Provide opportunity for students to participate in successful, rewarding experiences by adjusting curricular programs to meet the needs and abilities of individual students and groups of students

4. Plan with (as opposed to for) students for the selection and implementation of curricular programs and activities; invite students to participate in the selection and implementation of programs and activities which are of concern to them; develop a lesson or series of lessons which teaches students how to participate in group processes

5. Provide opportunity for students to share (peer teaching) talents, abilities, and work assignments with others, i.e., eighth-grade students may tell flannel board stories to second-grade students

6. Read to find descriptions of nondirective techniques (Rogers, Porter)

7. Describe Maslow's self-actualization theory

8. Make a study of the number of directive and nondirective teacher responses given in a given time period

9. Use these kinds of responses in dealing with student needs: interpretive, reassuring, probing, prognostic, prescriptive, and reflective

Skill Areas 8.1 through 8.4 address the learner's need for perceptual clarity.

SA 8.1 IDENTIFICATION AND CORRECTION OF MISPERCEPTIONS

Objectives

1. To recognize that perceptual errors in a given task tend to be specific and definable.

2. To become familiar with common perceptual errors made by students in your subject area (not cognitive errors).

Activities

Teacher activities and professional service to demonstrate one's competence in IDENTIFICATION AND CORRECTION OF MISPERCEPTIONS include such items as the following:

1. Ask students "what is missing in this picture"

2. Have students recognize and choose appropriate tools for a particular task

3. Have students complete a partially completed picture

4. Make a collection of grammatical errors made over a selected period

5. Make a collection of humorous misstatements, such as tenure/ten year

6. Describe a way to resolve errors in the use of such terms as stalactite-stalagmite, verb-pronoun, isobar-millibar, latitude-longitude, etc.

7. Set up a situation where mistakes can be observed in identifying traffic signs by shape only

8. Make a list of students' misperceptions in a particular subject area or curricular activity and develop a plan to enable students to correct their misperceptions

9. Read about various kinds of misperceptions (see a general psychology book for examples of illusions; also see Bruner, "Perceptual Readiness," Psychological Review for a professional discussion of the area)

10. In describing your experience in locating a particular error, define some general principles of investigative procedure (such as lining up numbers in columns in division)

11. Arrange a task in steps so that you may locate and describe specific perceptual errors

12. Observe the behavior of a child engaged in a sorting task

SA 8.1 cont.

13. Use these kinds of phrases consciously: "Keep your eye on the ball;" "When you (see or hear) the signal, go!"

14. Read about common academic subject errors in Bruekner and Bond, The Diagnosis & Treatment of Learning Difficulties

15. Plan a lesson which includes emphasis and treatment for a recurring perceptual problem you have found

16. Make a collection of common perceptual errors observed over a period of time in a particular subject ("Whenever I teach this, students often confuse _____ with _____, etc." "They'll make the same old errors in the same old places")

17. Show a student an error he/she has made, also indicating the first step done previously which was correct

18. Learn about common or frequent misperceptions which students are likely to make (in reading, for example) and teach a lesson or series of lessons designed to prevent misperceptions

19. Ask students to tell you about their perceptions and check/discuss ways in which any misperceptions may be clarified or corrected

20. Have students draw pictures, role play, or describe a person, place, or thing and how it functions; make a list of misperceptions and plan student activities to correct misperceptions

21. Develop a learning packet to be used by students which is specifically designed to correct, clarify, prevent misperceptions

22. Develop a lesson or series of lessons to help students prevent or correct misperception in advertising

SA 8.2 DISCRIMINATION TRAINING

Objectives

1. To recognize the need to establish a figure-ground relationship so that what you are presenting is clearly discernable.

2. To note the effect of similar but different stimuli on performance.

3. To become familiar with techniques for discrimination training.

Activities

Teacher activities and professional service to demonstrate one's competence in DISCRIMINATION TRAINING include such items as the following:

1. Provide a card game in which students make quick perceptual judgment, such as matching letters or forms

2. Have students locate a number or a word in a series of an index

3. Have students recognize class by their silhouettes (profiles)

4. Have students select parts which fit into a puzzle

5. Have students predict the successive location of various body parts and organs during surgery for removal of an appendix

6. Distinguish trees by the type of leaves

7. Point out distinguishing features of parts of speech, kinds of levers or gears, types of walls, variations in roof structure

8. Find out the simplest form in which to make a tepee and judge the effect of adding more poles

9. Use taxonomies and cataloging systems to identify rocks and birds

10. Develop a system or plan of instruction which teaches students how to distinguish between/among items, events, circumstances, and things which have similar characteristics and are easily confused or misperceived

11. Teach a lesson or series of lessons designed to enable or assist students to distinguish between what a thing is and what it is not, i.e., use pictures to show what the ocean is like

12. Prepare materials which can be used by students without close teacher supervision to teach them to distinguish or differentiate between examples and non-examples

SA 8.2 cont.

13. Read Lashley's account of the rat on the jumping stand (see General Psychology)

14. Make a set of flash cards or sandpaper blocks to use in training a student to see a specific difference (such as the difference between a d and a b or noun and verb, etc.)

15. Determine how many repetitions are needed (on the average) to instruct in a perceptual discrimination

16. In showing the cards, sort them into correct and incorrect stacks

SA 8.3 UTILIZATION OF PERCEPTUALLY ORIENTED MATERIALS

Objectives

1. To explore and utilize various, appropriate kinds of perceptual aids.
2. To learn to relate such materials to needs, aptitudes, and backgrounds in students.

Activities

Teacher activities and professional service to demonstrate one's competence in UTILIZATION OF PERCEPTUALLY ORIENTED MATERIALS include such items as the following:

1. Have students make graphs and charts which show essential parts
2. Use color overlays to create varied colors on an overhead projector
3. Put together kits or models which have moving parts to correspond to reality
4. Use jigsaw puzzles with educational value, such as states
5. Promote hobby collections of rocks, wood, butterflies, etc.
6. Set up samples which show different degrees of fine finishing (by touch)
7. Record a variety of sounds which are to be identified, including high and low tones, rhythms, bird calls, etc.
8. Locate or develop a textbook evaluation form to assist teachers in their selection of textbooks which are clearly written, which are accurate, which have relevant illustrations and pictures, and which use both inductive and deductive processes
9. Plan and teach a lesson or series of lessons which demonstrates relationships among parts and between a part and the whole, i.e., teach a science lesson which requires students to match pictures of birds with pictures of birds' feet
10. Prepare instructional materials such as puzzles to supplement textbooks and other commercial materials so that students visualize parts in relation to each other and to the whole

SA 8.4 INDIVIDUALIZING STUDENT PERCEPTUAL PATTERNS

Objectives

1. To recognize and utilize individual differences in perception.
2. To understand how perception is enhanced when critical parts are clarified and their functional interrelations mapped out.

Activities

Teacher activities and professional service to demonstrate one's competence in INDIVIDUALIZING STUDENT PERCEPTUAL PATTERNS include such items as the following:

1. Help a student to develop a checklist to monitor a series of events, i.e., lube job on a car, learning a new dance step
2. Have a student locate uppercase and lowercase letters (elementary or remedial)
3. Have a student locate his or her body parts by reference to an anatomical model
4. Show a student how to develop an outline of a subject
5. Use a time-line to develop perspectives in history
6. Use a step-by-step drawing to guide a student in putting together a model
7. Use a "star chart" to help students locate constellations
8. Provide opportunity for students to "tear down" and reassemble small engines, models, clocks, and other items; ask students to explain how the parts work together so that the total item functions properly
9. Prepare and teach lessons which teach students how to gather specific information through interview, questionnaire, and other techniques and how to process the information so that they are able to draw accurate conclusions and make justified interpretations
10. Identify frames of reference which students can use to form and/or evaluate perceptual patterns, i.e., blueprints, maps, schematic drawings
11. Identify and list student or personal biases that may influence one's frame of reference; teach students to recognize the potential influence of perceptual bias and stereotypes such as the "mean capitalist," "old man," "punk kid"

SA 8.4 cont.

12. Note how "set" based on past experience both inhibits and aids perception (for example, a + set is seen in the ability of an observer to see what others may miss)

13. Collect some questions related to increasing perceptual clarity, such as "What is the wrong end?", "Where is the border?", "Is there overlapping?", "Where should the lines go?"

14. Tally differences in expression related to attitudes of "left wingers" and "right wingers;" for instance, have a student put his/her hand in hot then N (neutral) also one put his/her hand in cold then N; compare what is said about N and discuss the polarization of the views expressed

15. Use the O-O illustration (or similar) to explain the effects of immediate past experience (exercising with hand weights or having your eyes examined)

16. Read to get an interpretive background on the role of perception in learning (see AV Communication Review, September-October, 1962)

17. Make a collection of charts which show parts

18. Compare the relative effectiveness of charts as compared to a verbal description

19. Show two charts, one with and one without, the parts being named

Skill Areas 9.1 through 9.4 address the learner's need for cognitive comprehension and understanding.

SA 9.1 DEVELOPMENT OF KINDS OF THINKING

Objectives

1. To become familiar with and to apply ways of helping students utilize the varieties of thinking processes as defined in Guilford (relates to SA 6, depending on your purpose)

Activities

Teacher activities and professional service to demonstrate one's competence in DEVELOPMENT OF KINDS OF THINKING include such items as the following:

1. Use a set of problems which requires single solutions and thus illustrates convergent thinking

2. Help students complete problems which have a variety of answers thus illustrating divergent thinking, i.e., "how many ways can you name to improve the cafeteria"

3. List ideas on a theme, e.g., "what do parents have a right to expect from teenagers (and vice versa)"

4. Comparisons: "what kinds of dogs (or ears) go with certain kinds of personalities"

5. Develop a list of opinion statements and predict the responses of girls as compared to boys or between teachers and students

6. Address and stamp letters to a variety of places; then "arrange" to leave the letter near a mailbox where it can be watched; keep track of which are picked up and mailed (see Psychology Today, June, 1969)

7. From lines in various songs, make a list of social problems

8. Read and outline information about the Guilford "processes" (Guilford, J. P., The Nature of Human Intelligence, McGraw-Hill, 1967; and Meeker, Marcia, The Structure of Intellect: Interpretation and Uses, Merrill, 1969)

9. Develop a set of two questions you can ask representing each of the Guilford process categories

10. Test the effectiveness of the use of one particular kind of question as compared to another in promoting inferential thinking

11. Practice using all the kinds of process questions in one single discussion

12. Discuss differences between concrete and abstract thinking

SA 9.2 DEVELOPING CONCEPTS

Objectives

1. To show how seriation is an essential part of some kinds of classification.

2. To contrast classification by kind and classification by amount.

3. To learn about and to use a two- and/or three-dimensional classification chart.

Activities

Teacher activities and professional service to demonstrate one's competence in DEVELOPING CONCEPTS include such items as the following:

1. Define a concept by providing students with examples and non-examples, e.g., a box full of rough and smooth objects (by teaching rough, smooth is also defined)

2. Show by examples how some concepts (like "animal") will include other concepts (like "dog")

3. Show by examples of justice and injustice how so-called "abstract" concepts can be made meaningful by using behavioral examples (what is fair? what is justice?)

4. Use two- to ten-item lists of words to demonstrate concept grouping; make a list of vegetables and one of fruits; have students try to remember all the items in a mixed twenty-item list; see if those who remember best have regrouped the words

5. Use a skeleton with muscles shown and have the students learn the names of major muscles and bones; let the student know that these names are called concepts

6. Have students explain these concepts--the concept of heat, the concept of distance, the concept of up--and help them realize the value of opposites in learning concepts

7. Review Piaget's approach to thinking as related to using two or more separate attributes simultaneously (Martorella, pp. 202-203); also (Flavell, The Developmental Psychology of Jean Piaget); relate this process to correlation and to ANOVA in experimental research

8. Make some two-dimensional charts with objects for students to classify

9. By using 8 boxes with lids, arrange to classify objects each having 3 qualities (for example, color, size, shape)

SA 9.2 cont.

10. Check the ability to classify at various age levels

11. Have a student tell you what he/she is thinking as he/she works at the classification problem

12. Read to define "concept" in Ellis, Human Learning & Cognition, Brown, 1972 (see also Bourne on concepts)

13. Read a general psychology book under the title of "concepts"

14. Read Three Teaching Strategies (for social studies), Joyce, et al., "Concept Learning," Part I, SRA, 1972

15. Survey the K-12 of examples of concepts in education given in Martorella's Concept Learning, Intext Ed Publishers, Scranton, Pa., 1972

16. Develop a paper in which you answer these questions: What do concepts do? What is concept attainment? What are attributes? How are concepts formed using positive and negative instances?

17. Adopt some of the Martorella exercises (Chapter 9) for your use

18. Use the K-F scheme (Martorella, pp. 180-182) to make a concept analysis or use the M-T scheme (Martorella, pp. 183-184) and note the use of concept analysis in setting up lessons as in SA 4

19. Present a concept attainment exercise to a student or class and ask questions at the conclusion to verify your success

SA 9.3 RELATING CONCRETE TO LOGICAL THINKING

Objectives

1. To explore applications of Piaget's stage theory to concrete and formal thought.

Activities

Teacher activities and professional service to demonstrate one's competence in RELATING CONCRETE TO LOGICAL THINKING include such items as the following:

1. Show how exact measurement is needed in determining the value of gold

2. Describe how a "law" is established, e.g., the speed of a ball rolling down an inclined plane

3. Show how accidents can be classified into degrees of severity

4. Use three sizes of weights, three lengths of string, and (tying the string to a point) swing the weights with various arcs; determine which of the three variables is essential in telling time (see Piaget); (P.S. It is the length of the string; look at your pendulum clock)

5. Develop a classification system which "cross" classifies in two dimensions, e.g., height of student and ability to jump, age and size, exercise and strength (correlation)

6. Develop a series of relationships in the form "x is to ___ as y is to ___, e.g., "cat is to mouse as ___ is to antelope"

7. Read Piaget's stage theory to compare concrete with formal thinking (see Flavell, The Developmental Psychology of Jean Piaget and a simpler version, The Origins of Intellect: Piaget's Theory, J. L. Phillips, Jr., W. H. Freeman, 1969); also The Growth of Logical Thinking, from Childhood to Adolescence, Piaget & Inhelder, Basic Books, 1956

8. Collect an illustration of a problem which is used to demonstrate the transition from preoperational to concrete thought and from concrete to formal thought

9. Use p and q to represent the length of the arm of the pendulum and the size of swing; complete various combinations as an experiment (the 16 binaries)

10. Help a student classify animals on a new planet into land-water and wild-tame, pointing out the varied combinations of p and not p, q and not q

SA 9.4 DEVELOPMENT OF LEVELS OF THINKING PROCESSES

Objectives

1. To recognize that when students listen or read, the input ranges from factual to inferential. Such developmental activity is a cognitive prerequisite to problem solving.

2. To enlarge the scope of thinking in students by referring, for example, to Taba's approaches.

Activities

Teacher activities and professional service to demonstrate one's competence in DEVELOPMENT OF LEVELS OF THINKING PROCESSES include such items as the following:

1. Keep a record of how many questions you use which call for factual answers as compared to those which call for thoughtful consideration of alternatives (literal versus inferential)

2. Ask students to paraphrase what you have been saying to check on their comprehension

3. Develop a rule and ask students to apply what you have said by using the rule in three different situations

4. Have students make a kitchen plan, applying principles of efficiency

5. Lead students in the analysis of several poems in which the various forms and patterns of poetry are compared

6. Put together a plan for a new world (synthesis) in which the best parts of our world will appear

7. Develop a scheme to evaluate whether a given community is more "civilized" than another

8. Use a formula to find the answer to a problem

9. Refer to Taba's Thinking in Elementary School Children (Coop. Res. Report Project No. 1574, San Francisco State College, April, 1964); also to material from Northwest Regional Educational Laboratory, 400 Lindsay Building, 710 S. W. Second Avenue, Portland, Oregon 97204; also to Basic Teaching Skills, Joyce et al., Learning Task 9 Modulating "Cognitive Level," Section III, SRA

SA 9.4 cont.

10. Compile questions to use to elicit three kinds of thinking. No. 1. Stimulate the collection of items, events, and ideas. Then begin to group them. "What items might go together?" No. 2. Help in interpreting. Use "what," like "What did you notice?" then use "why," "how," and "which." Ask for summaries. No. 3. Use application questions, "What might have happened if?" "Why do you think this might happen?"

11. Compare the Taba and the Joyce approach with different material on the same student

12. Read the Bloom taxonomy (Taxonomy of Educational Objectives: Cognitive Domain) with the intent of clarifying the various levels he describes; there is a minicourse in Higher Cognitive Questioning, Macmillan & Far West Laboratory (Rental, $165.00)

13. Transform your notes on Bloom into a series of questions to be used to represent each level of thinking

14. See which kinds of questions are most difficult to answer--those based on analysis or those based on synthesis

15. Consciously use two of Bloom's levels in presenting questions to a class

Skill Areas 10.1 through 10.6 address the learner's need for utilizing past experiences and previous trials and errors.

SA 10.1 SEQUENCING LESSONS TO USE PAST LEARNING

Objectives

1. To plan for improving transfer by selecting and promoting certain parts of a lesson for long-term use.

2. To teach for transfer by using two easily observable aspects: (1) pointing out that something learned will be useful in the future and (2) pointing out that something previously learned can now be used.

Activities

Teacher activities and professional service to demonstrate one's competence in SEQUENCING LESSONS TO USE PAST LEARNING include such items as the following:

1. Develop and use a lesson plan format which reminds you to provide need, opportunity, and time for students to transfer knowledge, establish relationships, and to apply principles, i.e., "Be sure to use what you learned yesterday"

2. Develop (teach) lessons in a subject area in a sequential, systematic way from simple to complex or from whole to part (or part to whole, as may be appropriate) or from theory/principle to practice/application or from past experiences to present and future experiences

3. Make a list of or identify in some other manner the knowledge, attitude, and skills students have demonstrated in one situation but are not able to transfer; teach lessons on how to transfer and provide opportunity to practice transfer skills

4. When introducing new material (knowledge, skills, attitudes), develop and implement plans for calling students' attention to similarities between what has been learned and what is to be learned; teach students to compare and contrast in looking for similarities or application

5. Help students develop memory systems to aid in transfer

6. Read and learn how the commercially-prepared reading (math or other subject) series is sequenced and organized; note the re-introduction of concepts, use of review lessons

7. Review Broadbent's filter theory of information processing which stresses selective filtering of input and compare it to the "buffer theory" (as in Atkinson or Shifrin); these references are in Psychology: An Introduction, Mussen and Rosenzweig, D. C. Heath, 1973

8. Review Ausubel's subsumption theory of forgetting (see Ausubel's Meaningful Verbal Learning)

SA 10.1 cont.

9. Outline the implications of memory theory for school learning

10. Conduct an experiment on short-term retention (see Mussen & Rosenzweig)

11. In making a presentation, point out the points you want students to remember long-term as compared to short-term

12. Read Ellis, The Transfer of Learning, Macmillan (1965) to find out the difference between identity and generalization in transfer (identity means that "exactly" the same concept will recur, as in the times tables, while generalization means that you have a rule or principle which will apply to several specific examples, such as the long "e" rule in spelling)

13. Make a check-chart so that someone can listen to a lesson you give and give you credit every time you teach for transfer (example: "You remember that yesterday we . . .")

14. Set up some "real-life" tests for testing for transfer of training

15. In giving a lesson, consciously use both techniques for fostering transfer, relating to what has been learned and pointing out what will be needed later

SA 10.2 IDENTIFICATION OF THE NEED AND PROVISION FOR REPETITION

Objectives

1. To use a plan for teaching tasks which require considerable repetition.

2. To learn to organize individual lessons which use repeating tasks or processes.

Activities

Teacher activities and professional service to demonstrate one's competence in IDENTIFICATION OF THE NEED AND THE PROVISION FOR REPETITION include such items as the following:

1. Work with students to develop a rationale for practice based upon realistic goals they have helped to set and to which they committed themselves (goals for developing athletic skill to handle a basketball, goal to master certain math facts, goal to increase reading speed)

2. Identify and analyze the skills or knowledge students must develop and make or obtain practice or drill exercises compatible with their abilities, levels of understanding, possible transfer application, and need for mastery

3. Locate or develop practice materials or exercises to provide variety in mastering skills which must be automatized

4. Ask students to identify practice techniques which are helpful to them and develop, or ask them to develop, materials designed to provide needed practice

5. Plan and carry out a time and motion research project to evaluate the effectiveness of certain kinds of repetitive drill or practice exercises

6. Ask students to list daily exercises which are automatic or habitual

7. Read Ellis to describe and define habit-strength, over-learning, and the part-whole method

8. Make a list of tasks in your area of interest which would benefit from repetitive practice

9. Compare the part-whole method to a complete repetition for each trial

10. Use the part-whole method of repetition such that you stop a student to the first point of error, have him go through the rest while looking, then start over with no looking

SA 10.3 IDENTIFICATION OF THE NEED AND PROVISION FOR GENERALIZATION

Objectives

1. To study an instructional sequence to locate portions which will be stressed repetitively and portions which will be structured for insight (general understanding).

2. To learn about how to teach students the skill of generalizing concepts and principles.

Activities

Teacher activities and professional service to demonstrate one's competence in IDENTIFICATION OF THE NEED AND PROVISION FOR GENERALIZATION include such items as the following:

1. Identify and list areas or incidents in which students can solve problems or answer questions through application of science generalizations or application of defensive driving skills

2. Develop a lesson or lessons which demonstrate how to select and combine specific, discrete facts into a generalization

3. Develop a lesson or lessons which teach students processes for testing or proving a generalization, i.e., propaganda, advertisements, claims

4. Demonstrate how generalizations may be utilized as shortcuts to learning new material or other uses of processes (skills) already acquired, i.e., the formula for volume enables one to calculate volume in all situations, or "red means potential danger, use caution"

5. Review Travers, Educational Psychology (Chapter 6), on the difference between transfer by identity and transfer by generalization

6. Take a lesson plan and mark the parts which you think will require repetition time as compared to simple insight

7. Test for yourself the length of retention of facts as compared to generalizations

8. Point out to students in giving your lesson the parts that will need special practice

9. Study various methods of improving transfer (see Ellis); see also Travers, R. M. W., Educational Psychology, Macmillan, pp. 186-197

SA 10.3 cont.

10. Collect a series of "insight phrases" which would be useful in promoting transfer (such as saying for "½ x ½," "It is ½ of ½, not 'times'")

11. Present an example which illustrates a rule and then ask students to do another similar one (example: Complementary colors)

SA 10.4 UTILIZATION OF CUES FOR SEARCH AND MEMORY

Objectives

1. To help students make guides to learning by brief listings of what he/she needs to look for.

Activities

Teacher activities and professional service to demonstrate one's competence in UTILIZATION OF CUES FOR SEARCH AND MEMORY include such items as the following:

1. Use brainteasers, mental puzzles, and cognitive games to teach students to locate and use cues to foster transfer
2. Develop plans to help students recognize organizers which aid transfer
3. Identify "search cues" (what to look for) and develop lessons to teach students how to use them to encourage transfer, i.e., "hidden picture puzzles, locating food in a forest, using recognition keys such as guidebooks and patterns
4. Identify and utilize techniques to help students develop higher thinking processes, i.e., teaching students to transfer by analogy
5. List and analyze your body language cues and their influences on students and vice versa, i.e., eye contact, voice intonation, verbal cues
6. Use signaling cues to help students prepare for anticipated events, i.e., band director "signals" with baton when the horn players are to begin
7. Read Ausubel's work (Ausubel, David P., The Psychology of Meaningful Verbal Learning, Grune & Stratton, 1963) on the use of "advance organizers" or read on the topic in an Ed Psych book, such as Travers
8. Make a check-off list for a student to use in going through the steps of a procedure
9. Experiment with "how much can be left out" and still be able to reconstruct the content of the original
10. Help a student to make a set of memory cues to help him prepare for an examination

SA 10.5 REDUCTION OF INHIBITION

Objectives

1. To discover and reduce conditions which promote interference (inhibition), such as similarity and weak initial learning.

Activities

Teacher activities and professional service to demonstrate one's competence in REDUCTION OF INHIBITION include such items as the following:

1. Identify inappropriate (rigid) student behavior and teach students processes for reducing or modifying this restriction, limiting action, i.e., tell student "try it this way;" teacher monitors and eliminates binding and judgmental statements

2. Plan curricular activities and learning experiences which insure correct learning behavior, i.e., use programmed instructional materials

3. Identify and eliminate classroom distractions which interfere with or compete for student attention

4. Ask students to identify "binding statements" used by the teacher, i.e., "It is easy;" (this kind of statement binds students to one course of action)

5. Role play or reconstruct situations in which a person is confused and recognizes inappropriate action or behavior (misplaced skill patterns: "I did the wrong thing at the wrong time")

6. Read to define "set" and "functional fixedness" (Hilgard and Atkinson, Introduction to Psychology, p. 379)

7. Read about retro and pro active inhibition as the "opposites" to transfer

8. Read to relate transfer to memory (Travers, Educational Psychology, Chapter 9)

9. Show how proactive inhibition could be called negative transfer (illustrate)

10. Compare the learning of related and non-related words

11. Note and respond to evidence of inhibiting set in a discussion (bias, preconception, etc.)

SA 10.6 ASSESSMENT OF TRANSFER

Objectives

1. To find out how achievement tests show transfer.
2. To find alternative tests which indicate transfer learning has taken place.
3. To assist students with assessing their own ability to transfer learning.

Activities

Teacher activities and professional service to demonstrate one's competence in ASSESSMENT OF TRANSFER include such items as the following:

1. Select and use achievement tests and criterion-referenced tests which measure student ability to transfer
2. Keep a record (teach students to keep records) of incidents of transfer and plan and analyze the factors of the incident
3. Develop informal tests, procedures, processes to identify student ability to transfer, i.e., classroom test over previous unit
4. Provide opportunity for students to demonstrate their abilities to transfer in a variety of circumstances; identify and analyze the successful and the unsuccessful tries; plan activities to prevent or correct unsuccessful tries

Skill Areas 11.1 through 11.7 address the learner's need for being a productive and an active individual.

SA 11.1 ANALYSIS OF LEARNING TASKS

Objectives

1. To learn how to "break down" larger jobs into smaller steps in order to help the learner accomplish a concept or task.

2. To use a movement sequence which identifies each and every change in direction (holding, moving, pausing) and every other element needed to perform a task.

Activities

Teacher activities and professional service to demonstrate one's competence in ANALYSIS OF LEARNING TASKS include such items as the following:

1. Have students "walk through" the steps in a project, and discuss how each step will be related to the next

2. Compile a list of materials needed to complete each step of a project, with estimated time for completion

3. Learn about task analysis and how it is the teacher's statement of the proposed behavior, while a behavioral objective specifies the kinds and level of student activity (see Anderson, R. C., and Faust, G. W., Educational Psychology, Dodd-Mead, 1973, pp. 57-84 for additional ideas on these differences)

4. Compare Gilbreth's "therbligs" to another system of task analysis

5. Make a task analysis of the same activity using two systems

SA 11.2 UTILIZATION OF OBJECTIVES

Objectives

1. To learn to formulate a verbal statement of specific behaviors associated with each step in a task analysis.

2. To teach concepts and tasks according to behavior statements and expected learner outcomes.

Activities

Teacher activities and professional service to demonstrate one's competence in UTILIZATION OF OBJECTIVES include such items as the following:

1. Write a set of behavioral objectives in which the exact outcomes are specified for each learner to complete

2. Include in your teaching a variety of outcomes in writing the objectives, specifying attitudes as well as knowledge and skills (Kibler et al.)

3. Read Hager, Popham, and Clark (Using Instructional Objectives in Teaching, Scott-Foresman, 1972) on how to write educational objectives

4. For objective paralleling Bloom, see Kibler et al., Behavioral Objectives & Instruction; also, see Harmes, H. M., Behavioral Analysis of Learning Objectives, Harmes & Associates, P. O. Box 15845, West Palm Beach, Florida 33406

5. Write a set of behavioral objectives for a unit of work using district instructions

6. Compare the effect on student performance of lessons which have written objectives and those who do not

7. Remind student of objectives during the course of a discussion

SA 11.3 PROVISION FOR PRACTICE

Objectives

1. To understand the relationship of spaced practice to massed practice approaches to reinforced learning (see SA 10, transfer by repetition).

2. To formulate means of observing the time and content analysis of practice and how these affect a student's learning.

Activities

Teacher activities and professional service to demonstrate one's competence in PROVISION FOR PRACTICE include such items as the following:

1. Study progress records for a given student and help him or her decide how much time will be needed to attain proficiency

2. Make a schedule which is distributed throughout a given time frame, rather than "cramming" the practice into some small part of the time (pacing)

3. Review the experimental literature on massed vs spaced practice

4. Look into additive schedule (Cronbach, Educational Psychology)

5. Make out a practice schedule for two different kinds of tasks

6. Try out various practice schedules using the same amount of total time, and report results

SA 11.4 MAINTAINING ON-TASK BEHAVIOR

Objectives

1. To learn specific techniques which maintain attention and effort without reward.
2. To move the group smoothly from one activity to another.
3. To minimize the effects of "off-task" behavior.

Activities

Teacher activities and professional service to demonstrate one's competence in MAINTAINING ON-TASK BEHAVIOR include such items as the following:

1. Use techniques to help students keep at work, e.g., remind them how much time is left
2. Plan smooth transitions when moving from one activity to another (avoid flip-flops)
3. Plan to handle a variety of interruptions to minimize distraction and maintain momentum, e.g., a student lets you know he will be leaving for band and then leaves quietly
4. Let students know what is to be expected at various times
5. Plan a discussion situation which encourages many comments from more than one student on each point
6. In a check-off sheet, allow tally space for a record of how often the instructor asks for further comment on the same concept from another student
7. Try two specific techniques designed to improve involvement, and compare
8. Try two different verbal techniques for increasing broader student response in a discussion situation
9. See USU protocols on Group Alerting and Learner Accountability (Utah State University, 1973)
10. Set up your own check sheet for reviewing these behaviors in yourself or another teacher; include reference to the Q, then call method of recitation, "all eyes on the book!" work showing and other goal-directing prompts
11. Conduct an in-staff training session, giving pre and post tests, but use time cues to pace the work

SA 11.4 cont.

12. Use phrases like "One minute more to finish," "show me what you have done" and others to alert your group

13. Define and illustrate a variety of techniques useful in monitoring behavior (see Kornin, Jacob S., Discipline & Group Management in Classrooms, Holt, Rinehart & Winston, 1970, and the USU Protocol Series, 1973, for a movie and booklet training module); see also Wiener, Daniel N., Classroom Management & Discipline, F. E. Peacock Publishers, 1972

14. Make your list of techniques you will plan to use in promoting momentum and continuity, including:
    -"Stand close" by the teacher
    -Avoiding flip-flops (false starts and stops)
    -"Withitness" (noting the student who is distracting and don't delay handling
    -Managing transitions
    -Minimizing distractions
    -Define positive behavior; set up positive behavior alternatives
    -Apply desists to the individual not group

15. Have a record taken of a sample of your teaching, practice using these techniques, and compare a posttest record

16. Improve your techniques for handling "goof-offs" and interruptions

17. In addition to a basic trust, the teacher needs to employ a strategy recognized by the group as a signal for free expression but under control

SA 11.5 INITIATION OF INDUCTIVE AND DEDUCTIVE STRATEGIES

Objectives

1. To become familiar with a presentation-application approach.

2. To explore a variety of applications and experiences designed to follow up a presentation.

3. To discover three major uses of prompting as related to mode of work: (1) to help a student continue a train of thought by hinting at needed information; (2) to see the student through critical points in a preset pattern; (3) to help a student gain independence by systematic prompt reducation.

Activities

Teacher activities and professional service to demonstrate one's competence in INITIATION OF INDUCTIVE AND DEDUCTIVE STRATEGIES include such items as the following:

1. Discuss with colleagues how different staff members use more "command" strategies (expository or telling) as compared to "discovery" strategies in directing student work

2. Explain to parents the times in which you tell students all the steps in what to do as compared to letting them discover some parts for themselves

3. Set up a series of events which will be in the form of guided discovery in which a learner has a good chance to reach the conclusion you plan

4. Ask students to express a preference for the amount of discovery desired; relate to each individual's needs

5. Plan a set of examples in which deductive discovery (mystery type) is compared to inductive discovery (several experiences leading to a rule)

6. Test varied ways of programming the position of the fact in a discovery sequence

7. Consciously use several examples for a principle you are trying to explain

8. For prompting see Cronbach, Educational Psychology, 2nd Ed., Harcourt, Brace & World, 1963, on "monitoring" (also, when to take "Response prompting . . .," Psych. Bulletin, 1967, U68, pp. 330-341)

9. For focusing, see Joyce, Basic Teaching Skills, SRA, 1972

SA 11.5 cont.

10. Plan a series of prompts to be given at places where you expect some hesitation in the performance

11. Compare various kinds of focusing as related to frequency

12. After a series of prompted trials, gradually reduce your prompted helps

Skill Areas 12.1 through 12.3 address the learner's need for recognition and rewards.

SA 12.1 SHAPING BEHAVIOR

Objectives

1. To help the teacher become oriented to individualized as well as general encouragement techniques.
2. To explore the role of varied reward schedules in shaping behavior.
3. To explore the role of timing in shaping behavior.

Activities

Teacher activities and professional service to demonstrate one's competence in SHAPING BEHAVIOR include such items as the following:

1. Test the effectiveness of proximity control by standing near a student who is not paying attention
2. Enlist class support to avoid paying attention to a disruptive student but being attentive to positive behavior
3. Work with other staff to identify causes of behavior and to develop fair, effective responses to student behavior
4. Identify and discuss with students the expected, desired behavior that is suitable in the classroom, school, and/or other environs
5. Explain your techniques of shaping behavior to parents and solicit their support, including "time-out" procedures
6. Conduct a class period in which you consciously attempt to increase the total amount of praise given
7. Read about behavior modification, including reference to the terms ratio, contingency, and shaping (Ackerman, J. M., Operant Conditioning Techniques for the Classroom Teachers, Scott F., 1972)
8. Set up a plan for intermittent versus continuous reinforcement
9. Compare effort related to rewarding time on task as to completing x number of tasks
10. Note how strongly students will respond to different reward menus such as recess time, toys, and early-out time
11. Intervene in a situation, by placing yourself in it, with a stimulus giving patterns
12. Read about general praise versus specific praise in the USU protocol Encouragement (include using student ideas as a kind of specific praise)

SA 12.1 cont.

13. Set up a check-off sheet for use in evaluation of this process in another or in having your own use of the technique evaluated

14. Score a tape of a teacher or trainee in which his/her use of encouragement is studied by tallying

SA 12.2 CONTROLLING BEHAVIOR

Objectives

1. To discover, utilize, and evaluate various ways of maintaining classroom control.

2. To explore new ways of managing classroom behavior.

Activities

Teacher activities and professional service to demonstrate one's competence in CONTROLLING BEHAVIOR include such items as the following:

1. Learn to give more than general praise; make the praise specific to the individual's immediate actions, i.e., "That blue color in your picture makes the other colors more vivid; I like it"

2. Share students' accomplishments with others for student recognition

3. Change the reward ratio by gradually asking for more performance for the same rewards

4. Have students list some rewards they would like to work for

5. List and eliminate negative statements from your methods of control

6. By discussion, build attitudes of respect and sets of behavioral goals and consider a variety of rewards, including both tangible and intangible

SA 12.3 DEVELOPMENT OF REWARD SYSTEMS

Objectives

1. To recognize and encourage effort in a student who only occasionally responds.

2. To reward a student for trying even if he/she is incorrect.

Activities

Teacher activities and professional service to demonstrate one's competence in DEVELOPMENT OF REWARD SYSTEMS include such items as the following:

1. Shift from a continuous system of rewards to an intermittent system of rewards

2. Plan a recognition time when students are honored for a variety of achievements

3. Develop and implement a "reward system" to help students recognize and behave in socially accepted ways; rewards may include special privileges, recognition, as well as other types; take special efforts to insure that all have opportunity to receive recognition/reward

4. Read Homme, Lloyd, How to Use Contingency Contracting in the Classroom, Research Press, on contingency contracting (see also Bradfield, R. H., Behavior Modification, Fearon, 1970; Becker, W. C. (ed.), An Empirical Basis for Change in Education, Chicago: Science Research Associates, 1971; Ramp, E. A., and Hopkins, B. L. (eds.), A New Direction for Education: Behavior Analysis 1971, Lawrence: University of Kansas, 1971; Sulzer, B., and Mayer, G. R., Behavior Modification Procedures for School Personnel, Hinsdale, Ill.: The Dryden Press, 1972)

5. Set up your own plan for offering tokens to a class group

6. Try different methods of increasing the number of behaviors needed to obtain a given token

7. Wear a counter so that you make cumulate reward token points for 3 or 4 groups within your classroom and arrange to trade them for a variety of rewards

8. Read on the "need" for success, but be aware of the "defenses" of an insecure student

9. Plan a program where all participants can be recognized, planning to be sure that a usually non-rewarded student is given attention

10. Try two methods of helping an insecure student and compare

SA 12.3 cont.

11. Try the approach of giving credit for some portion of a student's response in a way to encourage him/her

Skill Areas 13.1 through 13.7 address the learner's need for feedback and for monitoring performance results.

SA 13.1 DESIGNING FEEDBACK SYSTEMS

Objectives

1. To learn about ways to give informational feedback to students for academic, affective, or other concerns.

2. To help students learn how to give one another feedback about task performance and behavior.

Activities

Teacher activities and professional service to demonstrate one's competence in DESIGNING FEEDBACK SYSTEMS include such items as the following:

1. Practice reporting back to students at least once per class period how well they are performing a task

2. Pair students off with one another and role play (or do in reality) about how to give feedback to each other

3. Survey other teachers in your department, unit, or grade level about their ideas on designing feedback systems; what suggestions did they make to you?

4. Examine the history of individual and/or group learning which reveals patterns of common errors and find more accurate, systematic ways to provide feedback about academic mistakes

SA 13.2 DEVELOPMENT OF EVALUATION DEVICES

Objectives

1. To construct tests or other evaluation procedures which give diagnostic information.

2. To learn how to use feedback to modify student modes of work.

3. To learn how to assess feedback in appropriate and nondefensive ways.

Activities

Teacher activities and professional service to demonstrate one's competence in DEVELOPMENT OF EVALUATION DEVICES include such items as the following:

1. Have students invent ways they would like to receive feedback about academic matters (for example, setting up student "mailboxes" to be used in receiving messages from other students or the teacher, or making time at the end of a school day or a class period and ask students to reflect on their experiences and feelings and give feedback about the activities and experiences provided)

2. Adapt or adopt a testing system which diagnoses students' abilities; use devices already developed to determine students' capabilities and then give feedback about the success to each student; use or develop tests such as the Wepman, Beery, informal reading inventory, etc.

3. Spend time with an individual student and ask the person to help analyze test results

SA 13.3 UTILIZATION OF DIAGNOSTIC ANALYSIS

Objectives

1. To study the role of wrong answers in the assessment process.
2. To study difficulty level and item discrimination power.
3. To relate the assessment program to the aim of helping to define the particular needs of a given student.
4. To use a teacher-made test to help a student plan for needed remediation.
5. To become familiar with a variety of diagnostic tests.
6. To tally and classify the particular errors made by a student on a test. If the task requires a series of steps, check the student's success on each and every step.

Activities

Teacher activities and professional service to demonstrate one's competence in UTILIZATION OF DIAGNOSTIC ANALYSIS include such items as the following:

1. Learn about procedures for evaluating difficulty and discrimination power of test items (see Lindeman, Educational Measurement); outline the possible uses of a variety of distractors in test questions (see ETS, Studying Test Items)
2. Set up and use a formula for calculating the difficulty level and discrimination power of each test item
3. Use a tutorial interview to get information as to how the student is thinking as he/she gets through the test performance
4. Having determined the particular needs of a student, design a program which is individualized to what you have prescribed for him/her (see AV Communication Review, Vol. 10, No. 6, "Some Relationships Between Testing and Auto-Instructional Programming," November-December 1962, Paul Jacobs, pp. 317-327; see also Popham, W. J., and Baker, E. I., Planning an Instructional Sequence, Prentice-Hall, 1970)
5. Set up a diagnostic program for an individual student
6. Compare the results of two types of diagnosis-based prescriptive teaching
7. Sit with a student and explain to him/her the reasons for and steps in the program you have devised

SA 13.3 cont.

8. Outline the major assumptions in the making of an error study (based on the steps involved)

9. Make a collection of manuals of some commonly used diagnostic tests

10. Plot a diagnostic profile for the results of a test given to a student

11. Get information about a student's common errors by studying his/her test results

12. Discuss the errors a student made with him/her as you plan a new program for him/her

SA 13.4 UTILIZATION OF FEEDBACK FOR PROGRAM DEVELOPMENT

Objectives

1. To learn how to use information feedback (from students, colleagues, administrators, and media equipment) to modify instruction and the curriculum.

2. To learn to use feedback and assessment of instruction to modify curriculum.

Activities

Teacher activities and professional service to demonstrate one's competence in UTILIZATION OF FEEDBACK FOR PROGRAM DEVELOPMENT include such items as the following:

1. Study information given by the district personnel office on the district-wide achievement of students on achievement tests at various grade levels

2. From a newspaper account or from an interview with the pupil personnel office, outline the strengths of a district in the academic areas

3. Lead an in-staff discussion on the instructional needs of a school based on an assessment program

SA 13.5 UTILIZATION OF STATISTICAL PROCEDURES AND DATA

Objectives

1. To use simple calculations for determining central tendency, variability, comparability, reliability, validity, and correlation.

Activities

Teacher activities and professional service to demonstrate one's competence in UTILIZATION OF STATISTICSL PROCEDURES AND DATA include such items as the following:

1. Study the use of statistics in describing how given educational groups are performing (see Lendeman, Richard H., Educational Measurement, Scott-Foresman, 1967, or Storey, Arthur G., The Measurement of Classroom Learning, SRA, 1970)

2. Look at some issues and trends in educational measurement (see Rev. of Educ. Research, February 1965, Vol. 35, No. 1)

3. Set up calculation formulas and examples for dealing with:

   a. central tendency
   b. variability
   c. standard scores
   d. correlation
   e. significant differences

4. Report research findings in which you use the correct statistical language

SA 13.6 PROVIDING INSTRUCTIONAL PHRASES

Objectives

1. To help a student improve his/her mode of work as a result of a kind of informative feedback which gives him/her a meaningful rather than a rote approach.

2. To relate a working principle to a particular student's specific needs.

Activities

Teacher activities and professional service to demonstrate one's competence in PROVIDING INSTRUCTIONAL PHRASES include such items as the following:

1. This is an experimental item; search for phrases which "clarify" (for example: 1/2 x 1/2 is better stated as 1/2 of 1/2 not 1/2 times 1/2)

2. Use examples, analogies, and higher level kinds of questions (Bloom) to focus student learning

SA 13.7 PREDICTION OF COMMON ERRORS

Objectives

1. To develop a scheme for tallying the number of errors made by each class member on each task item.

2. To become familiar with item analysis of both teacher-made and standard tests.

Activities

Teacher activities and professional service to demonstrate one's competence in PREDICTION OF COMMON ERRORS include such items as the following:

1. In Ahmann, Gloch, & Wardeberg, Evaluating Elementary School Pupils, look at the method of recording how many students miss each item on a test (item error analysis, p. 342)

2. Make a tally form for charting the percentage correct on each item

3. Test the degree to which item error analysis can improve group instruction

4. Talk to a group on a review session where you describe their most common errors

5. Look into and then make use of Flander's Interaction Analysis to help monitor interaction patterns and problems

6. Look into and then use Miscue Analysis as an approach to evaluating student performance

Skill Areas 14.1 through 14.2 address the learner's need to express creativity and to find solutions to problems.

SA 14.1 ENCOURAGEMENT OF CREATIVE LEARNER APPLICATION

Objectives

1. To explore the use of "search" questions which allow imaginative reconstruction of events or conditions.

2. To demonstrate that associations may be enlarged and enriched by attribute listing (creativity).

3. To explore varied ways of enriching associations.

4. To study the possibility of increased "creative pause" in a lesson.

5. To use the brainstorming technique.

Activities

Teacher activities and professional service to demonstrate one's competence in ENCOURAGEMENT OF CREATIVE LEARNER APPLICATION include such items as the following:

1. Stimulate fluency of idea forming by using brainstorming (in listing ideas from brainstorming on the board, do not stop to criticize or to evaluate)

2. When a brainstormed list has been generated, discuss with a group how many kinds of ideas have been suggested and extend this flexibility by asking for other kinds (see Torrance and Williams), e.g., "How many uses can you think of for dirt?"

3. Increase a group's ability to speculate (consider alternatives) by asking "what would happen if _____"
   - -it only rained on Saturday
   - -water ran uphill
   - -sand was greasy
   - -grease was sandy
   - -etc.

4. Prime creative thought by asking for comparisons, e.g., in what way is a _____ like a _____; e.g., a banana like an orange, a ball like an airplane; (as a further prime, have the groups list characteristics of each before trying the comparisons)

5. Stimulate creative combinations, e.g., have students think of the front half of one animal and the back half of another; then have them name the new animal

6. Ask for original ways to approach or solve some common problems

SA 14.1 cont.

7. In addition to "what if" questions, read about other kinds of questions which stimulate creative thinking

8. Make a list of a variety of questions used to elicit creative responses

9. Compare the effectiveness of using two or more types of creativity-promoting questions

10. Conduct some discussions, trying out various types of creativity-eliciting questions

11. Read about varied ways of increasing creative association (see Davis & Scott, Training Creative Thinking, Holt, Rinehart & Winston, 1971, or Conceptual Blockbusting)

12. Make a list of instructions for conducting an attribute listing exercise

13. Have students respond to the question "How is an airplane like a ball," but have half of the students list the attributes of each before you give them the problem

14. Conduct an attribute listing session related to a creative problem

15. Read Taylor, C. W., and Williams, F. E., Instructional Media & Creativity, Wiley, 1965, for ideas

16. Read in Ausubel and Robinson, School Learning, pp. 532-544, for a discussion of creativity

17. Also, see the Far West Minicourse 20, Divergent Thinking, for instructions on brainstorming

18. Evaluate Raudsepp's six steps for promoting ideas (in Davis, G. A., and Scott, J. A., Training Creative Thinking, Holt, Rinehart & Winston, 1970, Chapter 8) or equivalent

19. Compare two techniques for stimulating idea fluency and flexibility

20. Conduct a brainstorming session with your group

SA 14.2 DEVELOPMENT OF PROBLEM SOLVING

Objectives

1. To help students structure a meaningful problem.
2. To suggest various steps needed to verify a hypothesis.
3. To define correlational and experimental fact-finding.
4. To contrast the value of correlational as compared with experimental findings.

Activities

Teacher activities and professional service to demonstrate one's competence in DEVELOPMENT OF PROBLEM SOLVING include such items as the following:

1. Help learners generate several hypotheses about problems they can test solutions for
2. Explain how hypotheses are tested by using control and experimental conditions
3. Have students test some hypotheses, e.g., in a bean-growing experiment, control the water and light but vary the soil quantity
4. Show how erroneous conclusions may be drawn without careful control of conditions, e.g., have students study and report on how polio vaccine was tested
5. Read Ausubel & Robinson, School Learning, Holt, Rinehart & Winston, 1969, Chapter 17, for a definition of problem solving
6. Contrast the above with creativity
7. For a practical look at thinking operations, see Raths et al., Teaching for Thinking, Charles E. Merrill, 1967
8. Chart the steps in the problem-solving process
9. Supervise a problem to solve which requires the use of two kinds of control
10. Work with a student who is solving a problem and have him/her explain his/her procedures to you
11. Define experimental as compared to correlational approaches to problem solving (see item 1 for problem solving; see Elzey, A First Reader in Statistics, Wadsworth, 1967, Chapter 7)

SA 14.2 cont.

12. Set up a form for making a scattergram

13. Collect two sets of data on a class and calculate the correlation

SA 14.3 DECISION MAKING

Objectives

1. To study the analysis of alternatives.

2. Learn to list and weigh pros and cons.

Activities

Teacher activities and professional service to demonstrate one's competence in DECISION MAKING include such items as the following:

1. After brainstorming a problem such as "how can we improve safety at our school," determine the most feasible alternatives

2. Following #1, determine the costs involved in the decision

3. Following #1 and #2, determine the comparative value of chosen alternatives based on how effective the solution is likely to be

Procedures for Evaluating Personal Progress

Introduction

This booklet began with a "pretest," a self-assessment guide, which assisted the analysis of your level of performance in the fourteen Skill Areas. You made some judgments about your level of expertise and then decided to undertake some suggested activities in a particular skill area and are now ready for the third step in the process: evaluation of your progress. Following are three general evaluation strategies which you can adopt or adapt to help judge your performance or growth in the skill area or its subtopic where you have invested time and effort.

Evaluation Strategy #1

Seek out a trusted colleague (teacher, aide, or administrator) and invite that person to participate in your "teaching improvement" project. Begin with that trusted individual by sharing a result (or all the results, if you wish) from the self-assessment process. Next share with him or her which Skill Area you intend to work on and which activities you intend to use to acquire new strength in that area.

Finally, come to an agreement with your colleague about how your growth will be measured. For example, the two of you may agree that if you completed five activities successfully in a given Skill Area, that completion alone would constitute growth in that area. Or, you may agree that your colleague will visit and observe in your classroom in order to share feedback about how well an activity has gone with a group of students. Or possibly you might work at an individual task, such as reading professional materials, and then report back to your colleague in some formal fashion what you have learned, how you will use what has been learned, etc.

Evaluation Strategy #2

A second method of evaluating what you have learned as a result of completing a series of activities in a particular Skill Area is to develop a finished "product" suitable for sharing. For instance, if you had selected Skill Area 11.1 (Analysis of a Learning Task) to work on and completed four activities in this topic, you may have developed a process to help other teachers "break down" learning tasks. As "evidence" of your mastery in this area, you might produce a handout for other teachers to implement with their students. How effectively and clearly you state the model to be adopted by others in your setting and how responsive people are to accepting the "product" you have shared will tell you how successfully your experience translates into action by others.

Another sample of a product kind of evaluation would be a display or presentation made about your learning experiences, i.e., the completed activities. Such possibilities might include a bulletin board or a display case announcing a particular teacher-tested method of working with students.

Other colleagues could pick up on your idea from the product you've developed and try it and give feedback about its success in their classroom.

Evaluation Strategy #3

A third way to measure growth or progress in a skill area is to make use of feedback from students about how your teaching has changed as a result of involvement with activities in a particular Skill Area. One way to include students in the process would be to let them know why you want to work in a particular Skill Area, what activities you intend to complete, and what the students' responsibilities will be. For instance, you may want to develop a questionnaire or survey kind of a form which students could complete at the end of lessons or the end of a unit in which you had implemented teaching strategies from the activities list. There are numerous kinds of checklists available (see Appendix) which could serve this purpose and give you relevant information about the success of your efforts.

Another way to receive feedback from students is to hold "circle meetings" or discussion groups and ask questions about how your instruction is being perceived and received. If students are involved in the process from the beginning (when you selected a Skill Area and its activities), then individuals are more likely to be honest and helpful in response to their involvement in your instruction.

A Final Note

The preceding strategies are merely suggestions about how one might assess learning, progress, and growth in this self-help approach to inservice education. A word of support for evaluation is perhaps needed here; don't leave out the evaluation step in this process. Evaluation is the key for you because it can help you determine what you have accomplished as well as point out additional areas needing attention.

EVALUATIVE INTERVIEWS

Procedures

1. Divide the class into groups of six or seven. Interview one group at a time.
2. Plan a series of specific questions before the interview.
3. Ask questions that reflect the objectives of your social studies instruction. Allow all students within a group an opportunity to respond to the questions. Refrain from evaluating the answers until after the interview. Be neutral in reinforcing responses, even when the answers are good, poor, or otherwise.
4. Include questions that allow students the opportunity to provide feedback about the teaching strategies.
5. Keep the interviews informal in the sense of allowing students to offer ideas to offer ideas as they would in a conversation--not raising their hands to speak but rather, waiting for an opening in a conversation. To prevent one person from monopolizing the discussion, solicit answers from each person when a question is posed.
6. Allow other students to agree or disagree with opinions of other group members stating their reasons.
7. The interview might be taped for the teacher to go over at a later time.

Activities

1. What have you enjoyed most about the unit? (content)
2. What part of the unit did you enjoy most? (technique - text, role playing, simulation, filmstrip, skit, etc.)
3. How do you think you learned the most? (data)
4. Were there things that weren't shown or weren't discussed that you would like to know more about?
5. Specific content questions on facts, generalizations, or concepts

Potential Questions

1. What percent of the pupils were participating?
2. Were pupils familiar with the vocabulary used? Did they understand the material presented?
3. Were pupils discussing with each other or were their comments always directed to you or through you? Did they listen and respond to others?
4. Were the pupils simply giving their opinions or were they relying on evidence found in the data? Could the pupils distinguish between fact and opinion?
5. Were you imposing your value or helping the children clarify their own values?
6. Did the pupils have any trouble following the discussion?

APPENDIX

SAMPLE

Nontraditional Evaluation Forms
Social Studies

(Student Evaluation of teacher)

Pretend that you could have your teacher change in some way. For each number check the box that best tells how you would like your teacher to act in the class. There are no right answers or wrong answers.

My teacher:	MUCH MORE than he/she does now	A LITTLE more than he/she does now	THE SAME as he/she does now	A LITTLE less than he/she does now	MUCH LESS than he/ahe does now
1. Helps with work					
2. Makes sure work is done					
3. Asks us to decide about how we will work					
4. Smiles and laughs					
5. Makes us behave					
6. Trusts us on our own					
7. Makes us work hard					
8. Shows that he/she understands how we feel					

SAMPLE

Nontraditional Evaluation Forms
Social Studies

(Group Evaluation Rating)

Scale 1 2 3 4 5 6 7 8 9 10
(low) (high)

1. There is trust and openness in the group. Members feel free to say what they think.
2. Members of the group pay attention to what is being discussed.
3. The group is well organized. It gets things done.
4. The group budgets its time wisely:
   a. It does not skim over discussions just to get them over with.
   b. It spends time on relevant discussion with all participating.
5. Every member has the opportunity and encouragement to use his talents in the group.
6. There is a sense of belonging in the group.
7. The group is serious in its efforts.
8. There is respect for each individuals opinions in the group.
9. The group does not give up when there is a lack of participation or disagreement within the group.

SAMPLE

(Student Self Evaluation)

	ALWAYS	OFTEN	SOMETIMES	NEVER
I report news.				
I give ideas during class discussions.				
I have reasons for my ideas.				
I listen to what others are saying.				
I try not make fun of the ideas of others.				
I change my ideas when I hear something that is better.				
When working in groups I try to say something that is helpful.				
Other.....				

Other categories may be added

Nontraditional Evaluation Forms
Social Studies

TWO SUGGESTED MODELS FOR GRADING ORAL WORK:

Model A

Major contributions made by student:

- Disagrees or engages in worthwhile controversy
- Draws major conclusions
- Introduces specific facts to support discussion
- Uses analogies
- Interprets ideas
- Encourages others to participate
- Summarizes

Minor contributions (just talks)

- Responds when called upon
- Attempts to say something
- Asks good thought questions
- Cites examples
- Draws minor conclusions
- Enlarges on fact already mentioned

Model B

The student:

- Adds to answers
- Volunteers ideas during discussions
- Participates actively in class
- Listens to what others are saying
- Does not make fun of the ideas of others
- Changes ideas when something more rational is heard
- Cooperates with the small group
- Uses good reasoning for his ideas
- Takes care of the Databank (Databox) materials

You may have the students in the group keep a record of the categories. If two are on the sidelines they may use the checklist as the group discusses or works on a project.